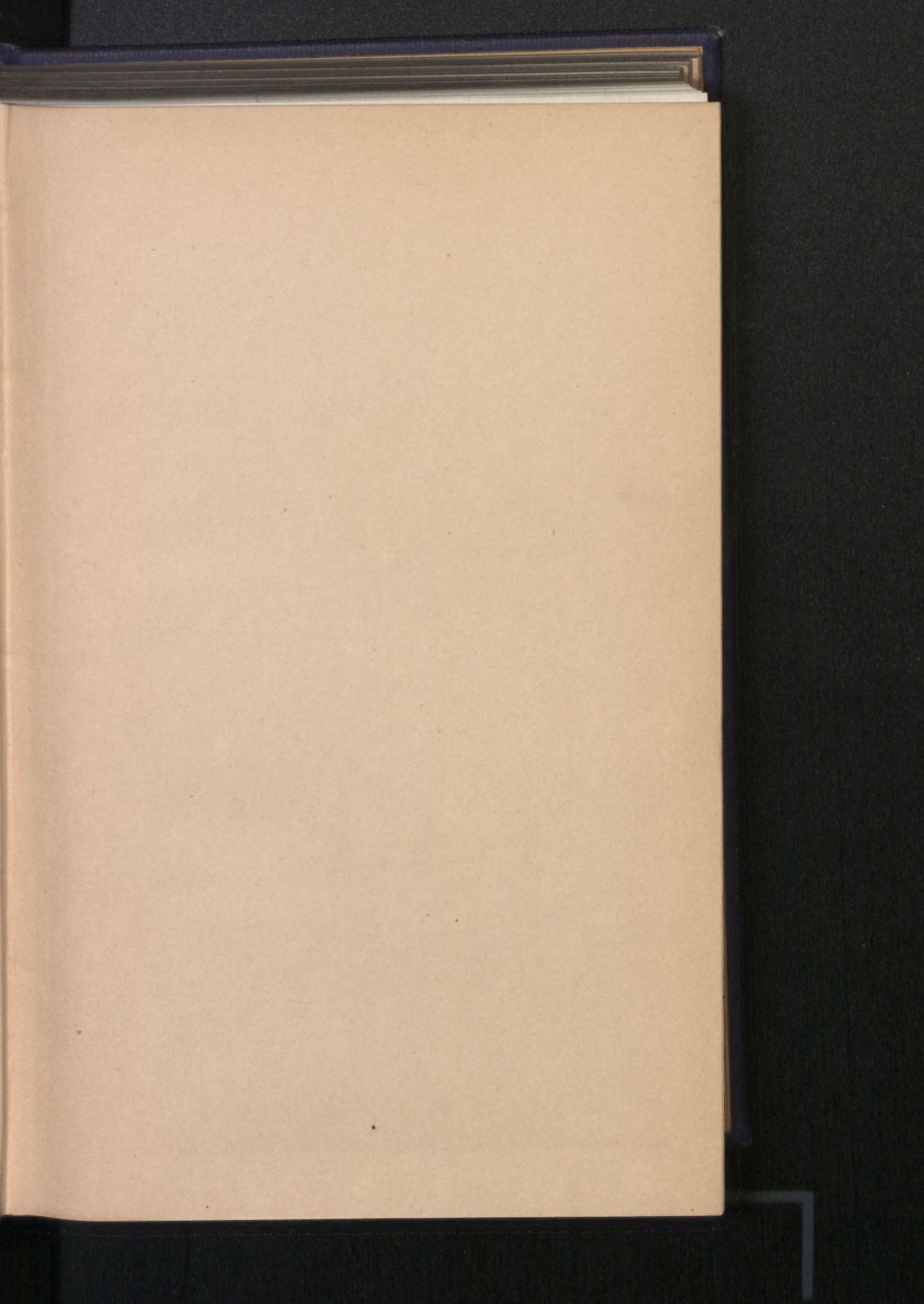
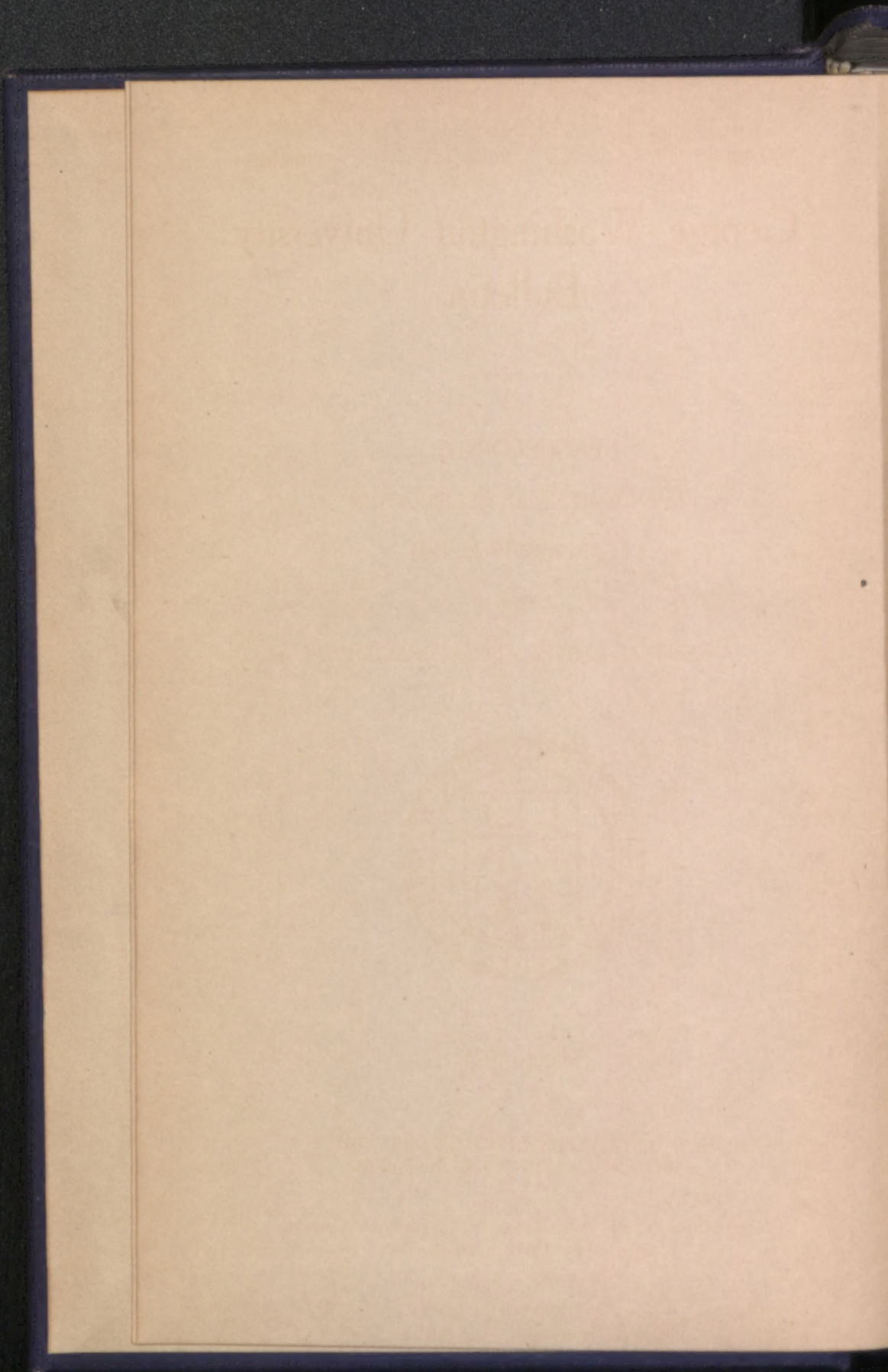


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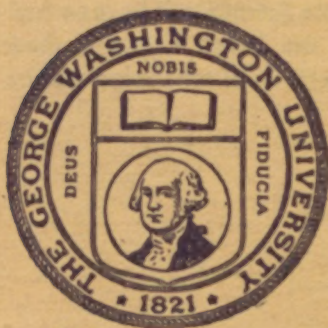
PROCEEDINGS

THE CENTENNIAL CELEBRATION

FEBRUARY 19-26, 1921

and

GENERAL UNIVERSITY INFORMATION



March, 1921

PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C.
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THE ANNUAL COMMENCEMENT

will be held on Wednesday Evening, June 8, 1921, in the Auditorium of the New Central High School, Eleventh and Clifton Streets. Cards of admission may be obtained from the office of the Secretary on and after May 15.

The Baccalaureate Sermon will be preached on Sunday Afternoon, June 5, at the Peace Cross, Cathedral Close, Mount Saint Albans. No cards of admission will be required.

PROCEEDINGS

of

THE CENTENNIAL CELEBRATION OF
GEORGE WASHINGTON UNIVERSITY

February Nineteenth to Twenty-Sixth, 1921,

and

General University Information

March, 1921

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THE
ONE HUNDREDTH ANNIVERSARY OF THE FOUNDING
of
GEORGE WASHINGTON UNIVERSITY

George Washington University dates its corporate existence from February 9, 1821, when President Monroe approved an Act of Congress chartering the Columbian College in the District of Columbia.

On May 23, 1919, the Executive Committee of the Board of Trustees, upon motion of Mr. H. C. Davis, authorized the President of the University to appoint a committee from the Board of Trustees to act with other committees, as a general committee to provide for the proper celebration of the Centennial of the University at some time on or near the One Hundredth Anniversary of the date upon which the charter was granted to Columbian College. The President of the University accordingly appointed Mr. John Bell Larner, an alumnus of the University and Chairman of the Board of Trustees, as Chairman of the General Committee on Centennial Observance. Other members of the Committee, representing the various portions of the University, were appointed as follows: Mr. Harry C. Davis, Mr. Gilbert H. Grosvenor, Mr. Theodore W. Noyes and Colonel Archibald Hopkins, representing the Board of Trustees; Mrs. James Carroll Frazer, Miss Nellie P. Sedgley and Dr. Douglas P. Birnie, representing the University Council; Mr. William Bruce King, Mr. Stephen E. Kramer and Dr. Charles W. Richardson, representing the Alumni; Mrs. Joshua Evans, Jr., and Miss Elizabeth Peet, representing the Columbian Women; Dean H. L. Hodgkins, representing the Faculty of Arts and Sciences; Dean William C. Borden, representing the Faculty of Medicine; and Dean Merton L. Ferson, representing the Faculty of Law.

This General Committee met in the office of the President of the University on Saturday, October 16, 1921, and decided that the Centennial Celebration should include a centennial convocation and a university centennial dinner, upon both of which occasions there should be present as the guests of the University, representatives of the more prominent colleges and universities in the United States. It was also decided that students of the

University be asked to arrange for student events, to be held about the twenty-second of February, which was adopted as the date for the Centennial Convocation, the University Dinner to be held on the night preceding.

To make the necessary arrangements for the University events, Mr. Larner appointed, as Chairman of the sub-committees, Mr. Harry C. Davis of the Committee on the Centennial Dinner and Mr. William B. King of the Committee on the Centennial Convocation. President William Miller Collier was a member ex officio of all committees and the Secretary of the University served as the Secretary of all committees.

Mr. Davis, as Chairman of the Committee on the Centennial Dinner, appointed as members of his committee: on behalf of the faculty and students of the Department of Arts and Sciences, Dean Howard L. Hodgkins, Dean William Allen Wilbur, Professor Henry Grattan Doyle and Mr. Walter Scott; on behalf of the faculty and students of the Law School, Dean Merton L. Ferson, Mr. Gilbert Hall and Mr. Harold Kay; on behalf of the faculty and students of the Medical School, Dean William Cline Borden, Dr. William J. Mallory, Dr. Oscar B. Hunter and Mr. Fred A. Franke; on behalf of the Alumni, Dr. Charles W. Richardson, Mr. Stephen E. Kramer and Mr. Theodore W. Noyes; and on behalf of the Columbian Women, Mrs. John Paul Earnest, Mrs. Joshua Evans, Jr., Miss Elizabeth Peet and Miss Elizabeth Wilson.

The events of the Centennial Celebration comprised the following: on Saturday, February 19, at the University, the presentation of a captured German cannon by the French Military Attaché, on behalf of his government; at the New Willard Hotel, the Centennial dinner of the students of the Department of Arts and Sciences; and at the Franklin Park Hotel, the Centennial dinner of the students of the Law School: on Sunday, February 20, at the Church of the Covenant, the Midwinter Convocation Sermon, with the Reverend Charles Wood, D.D., as preacher; on Monday, February 21, at the Raleigh Hotel, a reception by the Junior class; at Rauscher's the University Centennial Dinner; on Tuesday, February 22, at the Central High School Auditorium, the Convocation exercises; on Thursday, February 24, at Rauscher's, the Junior prom; and on Monday, February 28, at the Central High School Auditorium, the Junior play.

**THE PRESENTATION OF A CAPTURED GERMAN CAN-
NON TO GEORGE WASHINGTON UNIVERSITY
BY THE REPUBLIC OF FRANCE**

During the summer of 1920, the French Government, through Monsieur Maurice Casenave, Minister Plenipotentiary, Director General of French Services in the United States, offered a captured German cannon to the University. The formal presentation of this cannon was one of the events held in connection with the celebration of the One Hundredth Anniversary of the founding of the University. The address of presentation was made by Brigadier General L. Collardet, the French Military Attaché at Washington. President Collier, on behalf of the university, accepted the cannon which has been placed permanently in the grounds of the Woodhull Administration Building. The following official description of the piece was furnished by the French Government:

"Cannon No. 216 is a German cannon—Krupp model—that was made in the Krupp works at Essen in 1893.

It has a calibre of 150 mm. It belonged to a Prussian Coast Artillery Regiment.

It was captured by a detachment of the 4th Zouaves in October 1916 near Fort Douaumont on the Verdun front before the enemy had time to destroy it entirely or put it out of working order."

ADDRESS

At the Presentation of a Captured German Cannon by the French Government to George Washington University, February 19, 1921,

By **GENERAL L. COLLARDET,**
Military Attache of the French Embassy, Washington

I am here in behalf of my Government to present you with a gun taken by French troops from the German armies at Verdun in 1916.

Is it not specially fitting and appropriate that, in an institution proudly bearing the name of George Washington, there should be a souvenir offered by the French Government and the French Army? Washington was the first General who had the supreme command of an Americo-French army. Under his orders American and French volunteers fought, one and a half centuries ago, side by side, for the liberation of this country. From that first association and cooperation dates the friendship which has united our countries.

But this war trophy is not only a gift by which the French Government desires to honor George Washington University, it is more than that: it is a symbol.

For, what is this field gun? One of the weapons on which Germany relied for the satisfaction of her unwarranted ambitions. After the conquests made on Denmark, on Austria and France during the last century, Germany's greed was still unsatiated. The extraordinary development of her fleet and merchant marine, the flourishing state of her industry were not to be hampered by any competition. She took the first opportunity to ensure undisputed supremacy in the world by crushing down France, conquering the coast of the Channel whence she could attack Great Britain and become the omnipotent master on land and sea. After more than forty years of military preparation, she thought in 1914 that the time had come and started with her wonderful war machine for the conquest of Paris.

You remember the invasion of Belgium; the first German onrush; "the fresh and joyous war," as the Kaiser had said; and when success was at hand, the sudden reaction of the French Army; the first victory of the Marne.

In 1915 Germany had to push back the Russian armies which had invaded East Prussia. But in 1916 she turned again on the western front, confident that this time she could break the French line and realize her dream. This was the Battle of Verdun. A battle of nearly one year: from February 21st to December 15th, with only three months of lesser activity during the Somme Battle.

It was before Verdun that this gun was taken by our Zouaves from the division of Prussian coast guards. In this dreadful duel in which, for the second time, the German and French forces confronted each other, French morale and French tactics had again the better of German materiel and German methods. In history, Verdun will have the same fame and the same meaning as the battles where Christianity was saved: the battle of Chalons against Attila, that of Poitiers against the Saracens, that of Vienna against the Turks. Once more the barbarian wave was stopped and brute force was defeated.

But why did we have to maintain such a long and bloody struggle for the defense of our sacred rights? Because we were inadequately prepared to defend them. Had France had more heavy artillery and machine guns, had pacific Belgium had organized reserves, had Great Britain been less reluctant to have a national army, Germany would never have had the audacity to attack us.

And this is the reason why it is well to have under your eyes this gun as a reminder of the necessity of preparedness even for the most pacific nations, even for those whose power and situation seem unlikely to involve them in conflicts. Who could have guessed ten years ago that the United States would have to take up arms, mobilize four million men and send two million of them across the sea for her own protection?

You are today the young men who will prepare themselves to play their part in case of emergency; tomorrow you will be the legislators in charge of the interests of your great nation.

Do not forget the lesson inspired by this gun!

It is for these reasons that I am glad to have been intrusted with the mission of handing you over this trophy, offered by the defenders of Verdun to the University which bears the name of one who fought so gallantly for the high ideals of humanity.

CENTENNIAL BANQUET OF THE STUDENTS OF ARTS AND SCIENCES

Students of Arts and Sciences happily observed the Centennial in a banquet, on the evening of February 19, in the large ball-room of the New Willard Hotel. There were attractive decorations of flags and palms and flowers, and the students and their guests had a memorably pleasant evening.

Michael Mussman was master of the revels and toastmaster, and he presided over the tables and all the features of the evening with congenial goodfellowship. The dinner was excellent; and the music, rendered by an orchestra of twelve pieces, was notably good. An amateur vaudeville entertainment was presented by students between the courses of the dinner, in picturesque, fascinating, and charming acts of magic, music, and dancing. Original musical compositions, with words and music by students, were well received. The whole performance was clever and artistic.

The speakers were Hon. Royal C. Johnson, Member of Congress from South Dakota, Dean William Allen Wilbur, Dean Howard Lincoln Hodgkins, President William Miller Collier, who earlier in the evening had attended the Law Banquet, and Mr. William Bruce King of the Board of Trustees. The speaking had brevity and point; the National ideals that gather about the name of Washington, with the heroism and sacrifice of college men in the War; the old days of the College with Luther Rice and the pioneers; the incentives of the present with the range of study and opportunity in the University of today; the needs of the University, seeking to meet increasing demands with four thousand students; the personal words of reminiscence and hopefulness in the survey of the years.

The programme of the evening was well planned, and it was carried out in a manner consistent with the dignity of the Centennial exercises.

The patrons and patronesses of the banquet were Senator David I. Walsh, Senator Thomas Sterling and Mrs. Sterling, Hon. Royal C. Johnson and Mrs. Johnson, Dr. and Mrs. William Miller Collier, Dean and Mrs. Howard L. Hodgkins, Dean and Mrs. William Allen Wilbur. The executive committee consisted of Earl C. Shea, chairman, Katherine Symmonds and Walter C. Scott. Catherine Tonge was chairman of the entertainment committee and was assisted by Joseph Garnett, Martha Waring, Edward Brown and Evelyn Jones.

THE LAW SCHOOL DINNER

The Law School held a Dinner at the Franklin Square Hotel on February 19, 1921. This Dinner was a part of the Centennial Celebration. It was arranged by the Law School Senate. About 300 guests were present, the number being made up, for the most part, of Faculty, Students and Alumni. The following program was given:

TOASTMASTER

MERTON L. FERSON, Dean of the Law School

Solo.....	Arthur H. Deibert, '13
Four-minute speech.....	William A. Hunter, '23
Four-minute speech.....	L. Brooks Hays, '22
Four-minute speech.....	Harold T. Kay, '21
Short talk.....	Samuel Herrick, '02,
	President of the Law School Alumni Association
Solo.....	Professor Hector G. Spaulding
Address.....	Dean Roscoe Pound,
	of the Law School of Harvard University
Address.....	President William Miller Collier,
	of the George Washington University

Dean Ferson at the beginning of the program spoke in part as follows:

"Our Law School family comes together around the dinner table once each year just for the joy of getting together, becoming better acquainted, and giving expression to the spirit of comradeship which pervades our School. This year, however, our Dinner has added significance. It is part of the observance being made of the close of one hundred years of active, useful service by our University. Moreover, we stand at this time on the eve of the birthday of the great George Washington whose name our University bears. As time goes on the foresight of that great character becomes more and more marvelous. His ideals have become the ideals of a nation; his virtues have been held up before all succeeding generations. We continually display his life and character before our citizens as an inspiring lesson making for the happiness of our people and the stability of our government. In order to keep his character in the minds of succeeding generations monuments of all shapes and sizes have been erected to the memory of George Washington. The

thought I would leave at this time is that, judged by the fitness of things, no monument extant is more appropriate than a great living University such as ours, serving the young men and women of our land by aiding them to procure that education so essential to free government.

There is no doubt as to what the sentiment of George Washington would be as to the importance of that educational work. We find utterances strewn through all his writings and speeches urging the importance of education. We find in his will a bequest of what was supposed to be a considerable portion of his fortune left for the purpose of establishing a University in the Capital, to which the youth of the Nation might come. The property so bequeathed proved to be without value but the sentiment back of the bequest should be an inspiration. This monument we have erected to George Washington is not merely a pile of barren stone but is a great, living, working institution, dedicated to him and carrying forward a work he deemed of paramount importance."

Mr. Hunter spoke as follows:

As a member of the First Year Law Class, I am glad that this year, 1921, is my first year at George Washington University, for this year the University starts upon a new century of her career, and this year we look back and learn in her history, her ideals and her achievements; these start us on our careers in the University with an incentive to uphold and advance those principles which have carried her with such honor through the past century.

In looking back on her history, the most striking element to my mind is the close relationship of her history to the history of our Federal Government. Few of us, I think, realize that our University was founded twenty-seven years before the California Territory, comprising California, Nevada, Utah and Arizona, was ceded to the United States; twenty-six years before the title to the Oregon Territory, from which I myself come, was established in the United States; and twenty-five years before Texas was admitted to the Union. The University was founded during the administration of President Monroe, the fourth President, and almost takes its beginning with the establishment of our government in point of time.

But there appears to me to be a closer relationship than that of time. Like our National Government, our University has spread throughout the whole country, drawing her students from every section of our land, instilling them with her principles and ideals, and sending them back with a larger vision of our

nation. Perhaps this is more of a reality than ever before. The War took men, men who would have lived and died in one locality without knowing of any other section, took these men from the north, the south, the east and the west and mingled them together in training camps. Perhaps during their training days the men from one section looked askance upon the men from other sections; thought them different; disliked them. But when these men faced the days in France together, they learned that as a nation we have one character; that under the local mannerisms there is the man, and he is the same whether he be from the south, the north, the east or the west. And then these men became acquainted with these other sections, through these representatives. And here at the University, we can "carry on" this getting acquainted with the other sections. In addition to the knowledge learned of our own State, we have the knowledge accumulated in other States. And this comingled knowledge becomes knowledge of the nation.

Of even greater importance and significance, is our location. The location of our University makes it a truly national university. Situated within the District, we look to no State court for guidance, we study no State Code, we follow only the broadest of the national principles of the law. And being at the site of our Federal Government, we look upon the workings of that institution with a closer insight than any other University is able to do. If occasionally we can draw back, if we can take our noses from our books, and look about us, we can realize the wonderful advantages we have within reach. We can watch and study the laws as they are enacted, legislation which will be law when we go out to practice. We can watch the administration of the Government through the Departments and Administrative branches. But the finest of all for us, is the intimate touch we may maintain with the Supreme Court. Here we can watch some of the most wonderful, most consequential decisions being made. We can become invaluablely informed through listening to some of the ablest jurists of our Nation.

With such relationships our University is in truth a national, not a sectional; a Federal, not a State institution. Other Universities may boast of their buildings, their faculties and their wealth; but we have all these and more—we have the distinction and advantages of being a National University.

Mr. Hays spoke as follows:

MR. TOASTMASTER, LADIES AND GENTLEMEN:

The speaker who has just preceded me related in an interesting manner the establishment of the ideals of George Washington University. It is natural that during the centennial celebration of the University of which we are proud to be a part, we should

be thinking of the past and its accomplishments. But we are also thinking about the future—not only of the prospects for success and service which belong to George Washington Law School, but also of the part we as individuals may have in its progress and how we may be able in after life to add to the luster of its name. We are ambitious. We are finding fellowship tonight in the common possession of a great hope—the hope of doing and being something as lawyers. It is that hope which strengthens us for the test which every lawyer must undergo. The study of Law is not easy—it requires patience and persistence. As Justice Stafford has said in his eloquent and inspiring address on “The Lawyer,” “the lawyer makes sacrifices which no one else is willing to make in order that when the hour of doubt and difficulty arises he may have a word to offer when no one else knows what to say.” Because the goal is a worthy one, the student of Law, moved by the hope of reaching that goal, willingly makes the sacrifices.

I have been impressed with the many points of view and the many approaches to the study of the Law. All are represented here and within a few years every field of legal activity will have claimed its share of our efforts. Some of us, imbued with the spirit of learning, will linger around the college walls and become teachers of others. Some of us, growing tired of having cases decided against us, will don the ermine and undertake ourselves to say what the Law will be. Some of us, yielding to the lure of the small town will be doomed to a small general practice and will be living representatives of that class which retains high respect for the Law because “familiarity breeds contempt.” Some of us will unfortunately drift into politics and some of us will specialize in Criminal Law—all of us will undoubtedly be criminal lawyers.

On the other hand we are determined to succeed and we will! Longfellow says,

“How sweet is youth, how bright it gleams—

“With its illusions, aspirations, dreams!”

Thus older men—the successful ones—have always smiled at the ambitions of youth. Perhaps that is because they have minimized their own successes and do not realize that they have become the useful and successful men they had dreamed of being.

Be that as it may—our ambitions are not illusions, for with real purposes in life, with determination, and with willingness to make the sacrifices which must be made, we are going to reach the goals we have set for ourselves. We therefore look toward the Future with expectancy.

Mr. Kay spoke in part as follows:

. . . . Summing up, therefore, the past record of one

hundred years, we find in this institution a structure of durable proven stability and a brilliant list of accomplishments. Standing as we do upon the threshold of the future we have the achievements of the past to point the way to ever-increasing service. . . . You have been told by the preceding speakers of the incomparable and unexcelled qualities of this institution. Allow me to crystallize in your thoughts a product of those ideals which typify our school. A product which we will call the "Man." A man in every sense of the word. A man who would embody in heart and soul all the ideals that this school stands for. A man who would answer the test of that memorable poem of Kipling:

"If you can keep your head when all about you
Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
Yet making allowance for their doubting too;

If you can fill each swiftly flying minute
With sixty seconds' worth of distance run,
Yours is the earth and everything that's in it,
And, which is more, you'll be a man, my son."

The material is but raw and unfinished, but it is real material, let it but yield itself to the warm embrace of that Master Craftsman, the Faculty, and the product that I have endeavored to depict will be inevitable.

We have such an institution that it cannot but thrill one's unconscious pride when he realizes its possibilities for the future. However, united and whole-hearted support are absolutely essential to enable it to fulfill the mission that past achievements have made possible.

Mr. Herrick spoke as follows:

MR. TOASTMASTER, LADIES AND GENTLEMEN:

I am in some doubt as to the amount of time I am supposed to have, as the gentlemen preceding me were all put down for "Four Minute Speeches" while mine is designated as a "Short Talk," and I have always been under the impression that a talk is of less length than a speech. However, what I have to say can be said in a very few minutes, so I believe I will not disappoint any of you, no matter what your ideas may be about the length of a "short talk."

All I wish to do is to bring greetings from the Alumni to the student body gathered here tonight. The Alumni are very proud of the student body, of their achievements and of their record. Ever since the first class graduated, more than fifty years ago, the Alumni have been loyal and devoted to the interests of the Law School, which then held its sessions in a little

rented building on Fifth Street near the Court House, when there were but two professors and but three hours of class work each week—and I know that some of you in the freshman class look back upon those conditions with envy and longing! Later the School grew and prospered, until in 1898 it owned its own building next to the corner of Fifteenth and H Streets. Only a few years later, however, its financial skies darkened; its building had to be sold, and I believe the Law School would have been discontinued entirely but for the generosity and self-sacrifice of the faculty, who served for a year or two without pay rather than see the old School go under—and I am glad to say that some of these gentlemen are still upon the faculty, and a few are present here tonight. Then the School commenced again to thrive under the wise administration of President Stockton. Now it is in a most prosperous condition, with its splendid new building which was formerly and appropriately the home of the Department of Justice, with its fine corps of students and above all with its incomparable Dean, who is so deservedly popular with the entire student body. As has been stated already tonight, the number of its students is the greatest of any law school in the country except one, and were it not for the presence of our distinguished guest from Harvard, I would express the hope and belief that in a very few years it will be second to none, either in numbers, or in the ability and the character of its student body. And, let me add, that during all the past years, whether of prosperity or adversity, the standards of the School have never been lowered, but constantly made higher and better.

Finally, on behalf of the Alumni, let me state that we will gladly welcome into the Alumni Association all of you embryo lawyers—and lawyeresses—promptly after graduation; and also welcome you into the noble profession in which we are sure you will shortly make worthy places. In the meantime, I wish you Godspeed in your studies, and (may I add) “a happy issue out of all of your afflictions.” I thank you.

Dean Ferson introduced Dean Pound as follows: “The speaker of the evening is notable in so many ways that if an introduction were needed I would be at a loss to know how to make that introduction adequate. I might tell you at great length of the large contributions he has made to Botany and other sciences, but he would be a noted man if he made none of these contributions. I might tell you of his large success in the practice of law and on the Bench, but he would be a noted man if he had never practiced law nor been on the Bench. I might recite at great length as to the magazine articles he has written and the other contributions he has made to legal literature,

but he would be a celebrated man if he had not made any of these contributions. I might tell you of the large service he has rendered by way of revamping our legal philosophy, leaving a permanent influence on the English law. Although this seems to me a service of paramount importance, he would be a celebrated man without having rendered it. I might proclaim with great gusto that he is the Dean of the Harvard Law School, but, great as that position is, Harvard being beyond question the leading Law School of the world, and following though he does a train of illustrious scholars in that position, he would be a celebrated man if he had never gone to Harvard.

And thus it seems that I might recite his achievements at great length and yet not be able to explain why he is held in such high esteem by scholars.

Fortunately, however, our speaker needs no introduction. His name alone is sufficient to arouse in any University audience, indeed in any body of cultivated people, the keenest interest. It thus appears that the simplest introduction I can phrase is at the same time least faulty. Accordingly, my friends, I present Roscoe Pound.

Dean Pound thereupon delivered the address of the evening taking as his subject: "The Contest for Supremacy between the Common Law and the Roman Law." [This address will be printed in a later number of the *BULLETIN*. Dean Pound has not yet been able to furnish the text of it.]

President Collier made a short but inspiring address, in the course of which he complimented the Law School on its rapid growth, which he believed had been accomplished without a lowering of standards, and wished the School continued success in the development of lawyers trained not only in the law but in the highest legal ethics.

After the program the ballroom was thrown open and an hour or two was spent in dancing.

Monday, February 21, 1921.

MENU

Cream of Fresh Mushrooms with Croutons
Olive and Radishes Salted Nuts

Squab Chicken, Bonnefemme
New Potatoes Rissolées New Peas Sauté

Ices

Meringue Panachée

Fancy Cakes Macaroons Lady Fingers

14

SPEECHES

President WILLIAM MILLER COLLIER, Presiding

His Excellency, Mr. J. J. JUSSEKAND, Ambassador of France, representing the University of Paris.

His Excellency, SEÑOR DON BELTRAN MATHIEU, Ambassador of Chile, Senior Ambassador, at Washington, of the Latin-American countries, representing the University of Chile.

His Excellency, Senator V. ROLANDI RICCI, Appointed Ambassador of Italy, representing the University of Bologna.

Mrs. JULIA MARLOWE SOTHERN.

Honorable GEORGE HIGGINS MOSES, United States Senator from New Hampshire, delegate from Dartmouth College, in behalf of the colleges of New England.

President FREDERICK CARLOS FERRY, Delegate from Hamilton College, Clinton, N. Y., in behalf of the colleges of the Middle Atlantic States.

Honorable WADE HAMPTON ELLIS, Delegate from Washington and Lee University, in behalf of the colleges of the South.

Dr. FRANK W. BALLOU, Superintendent of the Schools of the District of Columbia, delegate from the University of Cincinnati, in behalf of the colleges of the Central States.

Professor VERNON KELLOGG, Chairman of the Division of Educational Relations of the National Research Council, delegate from Leland Stanford, Jr. University, in behalf of the colleges of the States of the Pacific Coast.

Responses are printed below in every case where a copy could be furnished by the speaker.

MUSIC

The musical program included a group of three songs by the University Glee Club, vocal solos by Mr. Preston B. Haynes, President of the Glee Club, solos by Miss Catherine Riggs, harpist, and several numbers by the orchestra.

Belle-Torre, once visited by Dante as an Ambassador, and where a son of that place, Fra Domenico, impelled by a touching desire to make his little town famous, employed his fortune in having a church decorated by one of the greatest artists of his time, Benozzo Gozzoli, the result being that, to this day, San Gimignano is famous and admired by people from every part of the world, who may see wherever the name of Fra Domenico appears that it is ever accompanied by the proud words *Doctor Pariensis*.

Among kings who were former pupils, we take particular pride in Charles IV of Bohemia, son of that King John who died for us at Crecy, and founder of the University of Prague, the earliest University in Central Europe, created long before any existed in Germany or elsewhere in those regions.

The Paris University continues its traditions and is as great by the number of its students and the eminence of its teachers as it ever was. It opens its gates in an even more friendly, not to say affectionate, spirit than ever to American students, many of whom before rubbing shoulders with French students in the lecture rooms, rubbed shoulders with French soldiers on the battlefields.

I had the privilege, a few years ago, to listen to a lecturer, coming from a country the existence of which was unsuspected in the earlier centuries of the Paris University's career, former President Roosevelt, whose teachings on "Citizenship in a Republic" were appreciated by all of us; and somewhat later, after the great war, gloriously terminated in company with the soldiers of Pershing, the same university bestowed the first degree of *Doctor honoris causa* which it had ever given, to President Woodrow Wilson.

On behalf of all this past and of all this present, filled with sentiments of friendship and admiration which have never ceased to grow during the long years of my stay in America, I bring earnest good wishes to that Columbian College, declared in its first year to be "in successful operation, with thirty-five students and a prospect of rapid increase," which, when I arrived in America, had just become Columbian University, and to the George Washington University of today, well worthy of the great name it bears, and whose thirty-five students of the beginning have been transformed, under the masterful

guidance of President Collier, into the five thousand students of today.

As a son of France, as one who has witnessed the splendid development of this country, the population of which has increased one fourth before my eyes, one who can testify that the spirit of '76 never faded, but was found just as irresistible in 1917, I beg to express, in the name of the University of Paris, the hope that your institution will be more and more fruitful in forming great and good citizens for this great and good country.

**Address by His Excellency,
SEÑOR DON BELTRAN MATHIEU, the Chilean Ambassador,
at the
Centennial Dinner of the George Washington University
February 21, 1921.**

Spain, our mother country, did not neglect the cultivation of intellectuality in her colonies in America, but founded centers of study in which were taught philosophy, mathematics and law.

In the institutions of learning, of those times, was sown the seed which produced the generation of enlightened men who were the fathers of the independence of the Republics of our Southern Continent; and the first care of the new rulers was to encourage these institutions which are the present national universities of Spanish America, in which have taught and are today teaching, professors renowned for their knowledge, many of them of universal reputation acquired in the great intellectual centers of Europe which have favored us with their valuable aid.

Our universities constitute today the foundation of our republics and in them are molded the institutions under which we live, develop and progress. We may, without boastfulness, aspire to maintain relations on a footing of equality, with similar centers of instruction in the rest of the world, all of which have the common aim of intellectual advancement, thereby creating stronger bonds than those that nations obtain by a purely political and commercial contact.

The importance which we attribute to this agency of cooperation explains our interest and our attendance at the Centennial commemorated today by this University, which bears the name of the illustrious Father of this great Republic, and which does its full honor to the responsibility thus imposed upon it.

Dr. Collier, its distinguished president, has among the many gifts which are his, a special and perfect knowledge of the Hispanic intellectuality. He is an enthusiastic admirer of its resplendent greatness in the past, a well-informed judge of its merits in the present, and an optimistic prophet of its influence in the future.

To this is due, doubtless, the kind invitation which he has extended to us to participate in this solemn commemoration, which, esteeming it a great honor, we have hastened to accept in order to demonstrate by our presence the good wishes which we entertain for the constant progress of the University over which he so worthily presides, and for the happiness and prosperity of its teaching staff and its alumni and its students.

**Address by His Excellency,
Senator V. ROLANDI RICCI, Appointed Italian Ambassador,
at the
Centennial Dinner of the George Washington University
February 21, 1921.**

(Delivered in Italian. Translation read by Pres. Collier.)

*"Non e' la voce mia cosi' profonda
che basti a render voi grazia per grazia."*

With these lines of Dante I express to you my feelings for the high honor of which you have considered me worthy, and beg you to excuse me for my inability to tell you in adequate words the depth of my gratitude.

But you, and rightly so, intended to honor my Country rather than its representatives, and for this I am the more grateful to you, as my country fully deserves the honor you are now bestowing upon her.

Ever since the Carmen Saeculare of the Venusian resounded from the Capitol through the Roman Forums and under the glorious triumphal arches, and through the dark centuries of the Middle Ages, the splendor of Italian civilization has shone over the world with never-failing rays; it revived philosophy with Boetius, spread charity with St. Francis of Assisi, illustrated ancient law and evolved it with Irnerius and Accursius, with Baldus and Bartolus; made poetry sublime with Alighieri, and humane with Petrarca; scattered mad fears away with the serene smile of Boccaccio; till the Renaissance enlightened the whole of humanity with new splendor, and presented the glorious display of marvelous universal artists who excelled in every art—in the figurative arts as well as in the arts of thought and speech—such as Michelangelo Buonarroti, Leon Battista Alberti and Leonardo da Vinci. In that same time Machiavelli derived from history its profound teaching; Raphael expressed his divine feelings in works of surpassing beauty; Bramante and Palladius drew their harmony in architecture from the inspiring influence of previous models; Christopher Columbus, Vespucci, Leon Pancaldus and Pigafetta reached these lands destined to become the radiating center of a greater civilization. Not much later Galileus founded the method of

positive science and paved the way to Isaac Newton. And while Andrew Vassalius directed medical science towards anatomical researches, Politian sang in Catulian verses sweet poems of pastoral love. Ariosto's poetry soothed with its sonorous lines the souls of men tired of a surpassed epic; and under the oak of St. Onofrius vanished the delicately somber song of Tasso.

Ever present, and teaching every branch of knowledge, the University of Bologna directed generation after generation towards the observance of the Latin precept "*Honeste vivere neminem laedere suum cuique tribuere*" in which is contained truth and all science capable of guiding humanity. George Washington, whose glorious name your University honors, proclaimed honesty to be the only rule both in the policy of states and in the life of individual citizens; the University of Bologna, which I have the honor to represent and whose greetings I bring now to you, was the originator of that principle of universal and inviolable morality of which your great fellow citizen was the proclaimer.

I am also honored and pleased to bring the reverent and affectionate greeting of Italy and myself to the Representative of the Nation that, after bringing liberty in the two hemispheres on the wings of the faithful hymn of Rouget de l'Isle, gave the world the great poet who, with prophetic understanding and with the highest sense of humanity heralded the union of the peoples for the advance of civilization. Italy, on her hand, gave a great thinker and agitator.

Other ages were identified with the names of Popes and Princes; the nineteenth century, in the name of justice and gratitude, should be known as the century of Victor Hugo and Giuseppe Mazzini.

I am also glad to express my greetings to the representative of that Latin people which, on the shores of the Pacific, gives such high evidence of alert cooperation for the advance of civilization and contributes with modern practical ideas to the real "*comitas gentium*."

You will allow me, Gentlemen, to express to you my sincere wish and hope that this meeting may be the beginning of lasting works.

I hope that a first result of this happy meeting may be the bringing together in a spiritual brotherhood of the students of

our universities. The exchange of teachers and students between Italy, France and North America and Latin America will undoubtedly bring them nearer.

We, the fathers, tired and sorrowful, wish to make life better for our sons, for those sons, who only yesterday, on the Marne and the Piave, together defied death in the name of liberty and justice.

"Quasi cursores vitae lampada tradunt" as Lucretius sang. And we are resolved to see to it that the light of life made more brilliant by human brotherhood may pass from our tremulous hands into vigorous hands of the young to enlighten their way through the centuries.

The last message of your great poet, Walt Whitman, in February 1891, said: "It is every day more evident that the only principle suitable for our times in literature, politics, sociology, is a principle agreeable to the best men and women throughout the world."

With the wise and sacred words of that message of peace and cooperation, which can be truly the Gospel of the New Age, I wish happiness to the masters and students of the American, French, Latin-American and Italian Universities.

"Quod felix, faustum, fortunatumque sit."

Response of Mrs. E. H. SOTHERN (Julia Marlowe) at the Centennial Dinner of George Washington University, February 21, 1921.

MR. PRESIDENT, GENTLEMEN OF THE COMMITTEE OF THE
GEORGE WASHINGTON UNIVERSITY:

The honor which you have been pleased to bestow upon me of the degree of Doctor of Letters, I accept with a high sense of appreciation. I accept it on behalf of my calling, which you have enriched for me with this new dignity. In these latter days, unique honors of like character have been bestowed from time to time upon the men of my profession, but I believe that I am the first woman of the profession to be so honored, and I accept it with a high and particular sense of satisfaction. You have made me very happy, and I thank you. And now as perhaps a fitting tribute to such an occasion, with your permission, I will read you some of Shakespeare's sonnets.

Response of Dr. FRANK W. BALLOU, Superintendent of Public Schools of the District of Columbia and Delegate of the University of Cincinnati at the Centennial Dinner of George Washington University, February 21, 1921.

As the spokesman of the University of Cincinnati on this happy occasion, it is my privilege to bring the following message:

"THE DIRECTORS, PRESIDENT AND FACULTY OF THE UNIVERSITY OF CINCINNATI extend greetings to the George Washington University and congratulations upon the completion of one hundred years of noble service to the cause of higher education. They would felicitate the trustees and faculty upon the past achievement of the institution, and would convey very cordial wishes for larger opportunities and greater achievements in the future."

At this banquet it is also my privilege to speak for the Colleges and Universities of the Middle West. As one surveys with a broad sweep the Colleges and Universities of the Middle West he thinks at once of the great State Universities which form an important part of the system of free public education. They furnish free higher education for every boy and girl who is qualified to pursue collegiate instruction. These State Universities stand as striking testimonials to the peoples' faith in free public education as a bulwark of democracy.

The state universities are the result of extraordinary foresight of our forefathers in reserving for educational purposes certain income and land resources of the state. Today when the nation and the several states are more and more turning to education as the best defense from possible enemies within and without, it is fitting to recall this faith of our forefathers in education and also to remind ourselves of the potent educational influences emanating from those state institutions which are the products of their vision.

In addition to the state universities one should likewise mention Western Reserve, Northwestern and Chicago Universities, the municipal universities of Akron and Detroit and the hundreds of small colleges throughout the Middle West.

The common characteristic of these institutions is service. No group of institutions of higher education in the nation has followed a more systematic policy of undertaking to serve the needs of democracy than the state and municipal universities and their sister institutions in this great Middle West. The state and municipal universities were established in order to place higher education within the reach of all and within the control of the people. They have made their service as broad as are individual and civic needs. They have not only been organized to serve the young men and women who enter their gates, but they have in various ways systematically carried education to the people throughout their respective municipalities and states. During its one hundred years of history George Washington University has exemplified in the Nation's Capital this spirit of service.

As Superintendent of the Schools in the District of Columbia, I take this occasion to express appreciation of the many ways in which George Washington University has rendered educational service, especially to teachers through its Teachers College. Let me also pledge the support of the Superintendent of Schools in furthering every undertaking of the University which will advance the cause of education.

I am sure that I voice the unanimous sentiment of the institutions for which I have been asked to speak, when I express the hope that George Washington University may continue to exemplify this spirit of service. May it always be guided by Trus-

tees, Presidents and Faculty with a vision for great things. In addition to the vision, may they possess the wisdom for putting their visions into being. And lastly may George Washington University be favored with financial resources necessary for the realization of its visions, and of the largest exemplifications of the spirit of true educational service.

CENTENNIAL CONVOCATION
of
GEORGE WASHINGTON UNIVERSITY
At Central High School Auditorium
February 22, 1921
Order of Exercises

OVERTURE	National Airs	<i>Tobani</i>
HENRY VIII DANCES		<i>German</i>
MARCH	"Stars and Stripes Forever"	<i>Sousa</i>

The Academic procession entered the Hall promptly at 2.45 p. m.

PRAYER . . The Reverend Professor Robert Hastings Nichols, Ph. D.,
Auburn Theological Seminary

CONVOCATION ADDRESS President Charles A. Richmond, D.D., LL.D.,
Union College

SUITE FROM THE SOUTH *Nicodemus*

COMMEMORATIVE ADDRESS William Bruce King, A.M., LL.M.,
Member of the Board of Trustees

Presentation by Dean Wilbur of Candidates for Degrees in
Columbian College

BACHELOR OF ARTS

Donald George Coleman, Kansas
Thomas Francis Farrell, Massachusetts
Alys Millsats Goforth, Louisiana
Arthur Jackson Gronna, North Dakota
Lewis Irving Harrison, Connecticut
Daniel Luther Haldeman, Pennsylvania
Everett Albert Hellmuth, Virginia
Frank Oscar Lundstrom, Colorado
Albert Joseph Mottern, Ohio
(With distinction)
James Byrne Ranek, District of Columbia
(With distinction)
Ralph S. Scott, Maryland
George Shisler, West Virginia
Sherwood Page Van Waters, New York
Jessie Mary Wolcott, Iowa

Presentation by Dean Ruediger of Candidates for degrees in
Teachers College

BACHELOR OF ARTS AND BACHELOR'S DIPLOMA IN EDUCATION

Margaret Jane Edic, New York
Marie Ada Thompson, Mississippi
Margaret Josepha Bashford, Virginia

**Presentation by Dean Borden of Candidate for Degree in the
Medical School**

DOCTOR OF MEDICINE

Julian Menzo Howe, District of Columbia

**Presentation by Dean Ferson of Candidates for Degrees in the
Law School**

BACHELOR OF LAWS

Raymond Bishop Canfield, District of Columbia

Ph. B., 1910, Yale University.

Joseph Clifford Curry, Tennessee

Maurice Matthew Duffy, Washington

James Morris Hammond, Nevada

Cato Burdge Hurd, Indiana

Lewis Mayers, New York

Fred Nash Oliver, Texas

Mark Joseph Ryan, New York

William Saulsbury, Delaware

A.B., 1887, Harvard University

George Eugene Strong, Kansas

Ph.B., 1917, University of Chicago

A.B., 1919, University of Kansas

Virginus Faison Williams, North Carolina

A.B., University of North Carolina

**Presentation by Dean Henning of Candidates for Degrees in the
School of Graduate Studies**

MASTER OF SCIENCE

Alice Iva Whitson, North Carolina

B.S., 1912, North Carolina State College for Women

MASTER OF ARTS

Gerhard Emmanuel Lenski, Ohio

A.B., 1910, Capital University

REMARKS TO THE GRADUATES

President William Miller Collier, L.H.D., D.C.L., LL.D.

Honorary Degrees

MASTER OF ARTS

Clifford Kennedy Berryman

Permeal Jane French

DOCTOR OF DIVINITY

Robert Hastings Nichols

DOCTOR OF HUMANE LETTERS

Charles Henry Betts

Samuel Richard Fuller

Alanson Bigelow Houghton

George Dudley Seymour

DOCTOR OF LETTERS

Frances Parkinson Keyes
Julia Marlowe Sothern

DOCTOR OF SCIENCE

Frederick Vernon Coville
Howard Lincoln Hodgkins
Charles Williamson Richardson
Frank Springer

DOCTOR OF LAWS

Mabel Thorpe Boardman
Frederick Carlos Ferry
George Higgins Moses
Luther Wright Mott
Charles Wellman Parks
Key Pittman
Charles Alexander Richmond
Arthur Charles Rounds
Bertrand Hollis Snell
George Sutherland
Robert Means Thompson
V. Rolandi Ricci
Beltran Mathieu
Jean Adrien Antoine Jules Jusserand

NATIONAL ANTHEM

"The Star Spangled Banner"

Benediction

MARCH

"Toyland"

Herbert

THE ACADEMIC PROCESSION

DR. WILLIAM MILLER COLLIER, President of the University, escorting
HIS EXCELLENCY, MR. J. J. JUSSERAND, Ambassador of France
HIS EXCELLENCY, SEÑOR DON BELTRAN MATHIEU, Ambassador of Chile,
escorted by
THE HONORABLE H. B. F. MACFARLAND, Trustee of the University
HIS EXCELLENCY, SENATOR V. ROLANDI RICCI, Appointed Ambassador of
Italy, escorted by
THE HONORABLE HENRY WHITE, Former American Ambassador to Italy
and to France, a Trustee of the University
PRESIDENT CHARLES ALEXANDER RICHMOND, of Union College, the Cen-
tennial Orator, and
DR. CHARLES WILLIS NEEDHAM, Former President of the University
MR. WILLIAM BRUCE KING, Trustee of the University, Commemorative
Orator, and
COLONEL CHARLES W. KUTZ, Engineer Commissioner of the District of
Columbia
SEÑOR DON FRANCISCO J. YÁNES, Assistant Director of the Pan-American
Union, in charge of the Educational Section, and
MR. JOHN JOY EDSON, Trustee of the University

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PERSONS WHO WERE TO RECEIVE HONORARY DEGREES
(other than Foreign Ambassadors and the Centennial Orator)
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(for order see below)

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THE SCHOOL OF GRADUATE STUDIES
COLUMBIAN COLLEGE
THE COLLEGE OF ENGINEERING
TEACHERS COLLEGE

THE DEPARTMENT OF MEDICINE
THE MEDICAL SCHOOL
THE SCHOOL OF PHARMACY

THE LAW SCHOOL

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CANDIDATES FOR DEGREES IN COURSE AT COMMENCEMENT

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(Arranged according to the diplomatic rank of the representatives)

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His Excellency, Mr. J. J. Jusserand, Ambassador of France

THE UNIVERSITY OF CHILE:

His Excellency, Señor Don Beltran Mathieu, Ambassador of Chile

THE UNIVERSITY OF BOLOGNA:

His Excellency, Senator V. Rolandi Ricci, appointed Ambassador of Italy

THE UNIVERSITY OF BORDEAUX:

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Continued

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UNIVERSITY OF NORTH DAKOTA:

Cora Smith King, A.B., M.D.

TEMPLE UNIVERSITY:

Dean James H. Dunham, A.M., Ph.D.

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Alice Deal, A.B.

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Orr R. Hamilton, E.M., B.S.

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Charles W. Gilmore, B.S.

CATHOLIC UNIVERSITY:

The Right Reverend Thomas J. Shahan, D.D., J.U.L., LL.D.

UNIVERSITY OF IDAHO:

Miss Permeal J. French, M.A.

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DREXEL INSTITUTE:

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UNIVERSITY OF THE STATE OF NEW YORK:

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ST. MARK'S SCHOOL:

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ST. PAUL'S SCHOOL:

Honorable James S. Parker

TOME SCHOOL:

Mr. E. A. Ewing

Arrangements for the seating of the academic procession on the stage were in charge of Professor Frank A. Hornaday. The seating of guests was in charge of Professor Otis D. Swett, assisted by a corps of student ushers, and the formation of the academic procession was in charge of the Secretary of the University and Professor Robert W. Bolwell. Mr. Sol Minster directed the orchestra.



CENTENNIAL CONVOCATION OF GEORGE WASHINGTON UNIVERSITY, FEBRUARY 22, 1921

Leaders in the Academic Procession, from Left to Right:

His Excellency, Mr. J. J. Jusserand, the French Ambassador; His Excellency, Senator V. Rolandi Ricci, the Italian Ambassador; His Excellency, Señor Don Beltrán Mathien, the Chilean Ambassador; His Excellency, Trustee of the George Washington University, Mr. H. B. F. McFarland, Trustee of the George Washington University; William Miller Collier, former American Minister to Spain, President of the George Washington University; William Second row; Professor George N. Herzing, Dean of the Graduate School; Professor William A. Wilbur, Dean of Columbian College; of and between the Chilean Ambassador and the Italian Ambassador; Col. Charles W. Kutz, Engineer Commissioner of the District of Columbia.

CONVOCATION ADDRESS

at the Centennial Convocation of George Washington University, February 22, 1921.

By CHARLES ALEXANDER RICHMOND, D.D., LL.D.,
President of Union College.

There are certain interests in this as in every nation which, by common consent, we look upon as paramount. Among them we would name our laws, our government, our education. And to foster and safeguard these interests we adopt certain policies or lines of conduct. But back of all this there is, or should be, a philosophy clearly understood and finding expression in definite, controlling principles. There is all the difference in the world between the man who approaches important questions from the point of view of expediency and the man who approaches them from the point of view of principle. Our disasters in government, in society, in education, come usually from entrusting these vital interests to men who choose expediency before principle; either because they are incapable of distinguishing one from the other or because they are too cowardly to face the unpopularity which often results from the larger choice.

But in any line of conduct which may be called a policy the question to consider is not the immediate but the ultimate; not speed but direction; not how fast are we going, but where are we going? We have had a good deal of joy-riding in this free republic in the range of government and industry, as well as in education; and in some cases it may result as such happy excursions often do in the wreck of the car; the hospital for some and the jail for others. The off-hand solution of problems involving human life in large relations is not to be looked for. The specific which promises instant cure is sure to be a fraud. Ignorance, disease, vice, violence, injustice, can only be conquered slowly. Or to put it positively: intelligence, health, virtue, justice, peace, human brotherhood, are only to be won by long and patient struggle. It is trench warfare—a foot at a time and then dig in and hold your gains. But we must know what we are fighting for. We must have a philosophy of life and give our answer to the question, "What are we here for?" And we must have not only the knowledge of good and evil but the wit to discern them, the one from the other.

And so in education; for education is, after all, very nearly the whole story; in education we are dealing with human life in its largest and most important aspect. In laying out a scheme for the young we must know what we are aiming for and to know that we must have settled in our minds whether man is only a stronger kind of animal—a big, blonde, beast created for plunder—or whether he is an immortal spirit made in the image of God and created for human service.

At present, we are all clamoring for what we call a practical education. Sometimes we gather it all under the term scientific, using the word unscientifically and narrowly, as an applied and practical knowledge for immediate material use. More often we call it education for efficiency. The results of this kind of a policy have been astonishing, no less in what we have accomplished than in what we have failed to accomplish. We have increased in wealth and added to our physical comforts. Certain kinds of knowledge are more widely diffused. Life has been made easier for many and the span of years has been slightly extended. On the other hand, we have created new wants and invented new diseases. We have become not more independent of our environment but more dependent. Life has become more sanitary, but not more sane. We are more lavish, less frugal. We are smarter than our fathers, but not wiser. Science has taught us how to save life and how to destroy it. In five years it has destroyed more lives than it will save in many years, and these of the best. Whether science will eventually prove to be the friend or the enemy of mankind will depend not at all upon the teachings of science but upon the teachings of religion. The more a man knows the more dangerous he may become. Science does not teach forgiveness or pity or brotherly love, but religion does. Nietzsche says, "Be hard;" but Jesus says, "Be merciful." Science gives us knowledge, but religion shows us how to use it. Religion says, "I would make life happier;" science says, "and I will help you to do it."

We have had now something like fifty years of an education which has become more and more absorbed in studying and applying the powers and processes of physical nature. So far as it has applied to man it has been as an interesting and highly diversified animal, rather than as a spiritual being. When we count up our gains and losses we are often perplexed to know on

which side the balance lies. Certain large promissory notes have not been made good. Many of our profits are paper profits and not a few of our securities have gone bad. She has promised us civilization, she has given us physical comfort; she has promised us emancipation, she has given us efficiency; she has promised us content, she has given us more discontent, by multiplying cravings which she does not and cannot satisfy. As for the promise of happiness, that note has certainly gone to protest. The fault is not with science, the fault is our own. We have been asking her to give us that which was not hers to give.

We have seen the system worked out most completely in a great nation which we once all admired and loved: I mean Germany. It is a monumental example and at the same time a warning. Nowhere was it possible to bring all the elements of the national life under such perfect control and to set the current of thought and education running so consistently in one direction. For forty years or more this current was turned without variation or loss of energy in the direction of applied science, and her success was unrivaled. She made advances proportionately greater than those of any other nation on earth, and added enormously to the developed resources in many branches of human knowledge; especially in the application of science to industry and to destructive warfare. Riches increased, and she set her heart upon them. She reduced poverty, organized relief, established a certain order in government; in short, she applied the scientific method with characteristic courage and thoroughness to every range of life, high or low, and throughout the whole country. The spirit of that nation may fairly be described as the spirit of scientific efficiency. In the meantime the character of the people changed under this education. Is it better or worse? Is the German nature more respected or less respected than it was a generation ago, when *Gemüthlichkeit* was more regarded than scientific efficiency; before culture became *Kultur*? Did she gain in clear-sightedness, in perspective, in appreciation of the virtues and achievements of other nations? Did her education make her more humane, more chivalrous, more sympathetic, more civilized? Ask Belgium! Did her search for scientific truth make her more truthful? It should, but did it? Did she become more regardful of the rights of others, more scrupulous in keeping

faith and in respecting treaties—those scraps of paper? Or did the discipline to which her people were submitted from early childhood tend to make them hard-hearted and arrogant and self-sufficient?

These are questions we have a right to ask. There were many enlightened Germans who thought so even before the War. A few months before the late war one of their influential writers bitterly attacked the Prussian policy of education. He declared that it had crushed spiritual aspiration and destroyed the genius of poetry. "What is the Germany of today?" he asks. "An arsenal, a stock exchange, a monster hotel, a madhouse." That was in 1913. A very famous German scholar, known throughout the world, and a most ardent defender of his country, I mean the late Professor Münsterberg, told me, early in 1914, that his nation was becoming hard and commercial; that her prosperity had affected the character of the people, and that they were copying the worst vices and extravagances of America. A generation ago, Germany had a peculiar place in the affections of the whole world. But gradually that affection cooled and one short week of the German armies in Belgium changed respect to contempt, admiration to disgust, and a friendly world to a world of enemies. And they called that efficient! They did not even come within sight of the obvious truth that no system of education and no policy of government can be efficient that conceives of human nature as a machine! The most necessary thing to learn in all this world is to understand the other man, to get his point of view, to realize how he thinks and feels, to anticipate his reactions. For a nation, it is indispensable. To fail in this is to fail in everything. The failure in Germany to understand was the real source of all her troubles. Not so much her arrogance, her overweening ambition, her greed and lust of conquest; but her stupidity. It is the wonder of the world today. She guessed wrong at every point. She thought Belgium would not resist; but she resisted to the death. She thought she would get to Paris in a month; she did not get there at all. She thought England would not enter the war; but she did not hesitate a day. She thought England's colonies would refuse to help; but the colonies gave all they had, and the best they had. When the German soldier saw a Canadian or an Australian charging on him he held up his hands. They thought India would revolt;

but India had no idea of exchanging the rule of Great Britain for the rule of the Hun. They thought the Mohammedans would rise; but only the off-scouring of the Faithful would have anything to do with them. They thought the Zeppelin raids would produce a reign of terror in England; they only made the task of Great Britain easier by steeling their hearts and strengthening their resolution. They thought the submarine would starve England; it went far to starving Germany. They thought America would not fight; well, did we?

When you put the whole thing together this is what the boasted Prussian efficiency amounted to. It was the most stupendous waste, as well as the most colossal blunder, in all the long history of human waste and blunders, since man began to live upon this earth. And we in this country, strangely enough, admired the thing which we now see was the mother of so much that was foul and base. We were obsessed with the German education. We called it progress. We know now that it was a turning back of the clock, a return to all that was worst in the Dark Ages. We accepted it uncritically, the blind following the blind. We did not discriminate between the method, the patience, the care, the thoroughness, the system—the good points of the process—and the essential brutality of the philosophy that was under it. We see now that the German discipline, to which every child in the Empire had to submit, did not tend to liberate the mind, but rather resulted in a kind of slavery both of the mind and of the spirit—a slavery as absolute as the sacerdotal slavery of the Middle Ages, and more abject, for that at least furnished an atmosphere in which the wings of the imagination might spread and soar and where the spirit might find a certain exaltation and expansion. There must have been something of liberty in the mind and in the soul of the ages that could produce the paintings of Giotto and Cimabue and the Cathedral of Chartres and York Minster. We cannot do that now.

We are constantly boasting of our freedom. We measure human progress by the advance of what we call liberty. But we may as well know what we mean by that kaleidoscopic word. If it means, chiefly, to get and to gain, and license to do what we like, it is a measure of barbarism and not of civilization. But if it means the liberating of the spirit from the gross appetites

and passions of the flesh, the disentangling of the ethereal and heavenly in man from the brutish impulses that clog and enmesh and prevent the soul in its upward flight, then it is, indeed, a measure of civilization and of essential progress.

It is a subject of Homeric mirth to see the use we make of our time, our energies, our genius, our resources. We fight and suffer and spend life and fortune to gain liberty, and the best use we have for it is to forge new chains for ourselves. We multiply conveniences and then we grow dependent upon them in a way most inconvenient, and our many inventions grow of themselves into a kind of Frankenstein, in the fear of which we live. Never in the history of mankind has he been so utterly the slave of things. We can not live without them, and often they become so oppressive that it seems as if we could hardly live with them. We have lost the art of living simply and thousands of people successful in business and in society exhaust life in the process of living. The underlying theory of it all, held, as I believe, quite unconsciously, is that the possession of money will emancipate from the bondage of work and enable us to live free and easy lives; and that this is the goal of human aspiration and the only happiness we can be sure of. It is a brutish and a very fallacious theory, and the proof of it is that it does not satisfy. To make such a theory the foundation of a system of education and to teach our children in the schools and the young men and women in our colleges that this is life, would be like injecting an insidious kind of poison into them which would slowly corrupt the blood and in the end destroy all the finer impulses and ideals.

It is not the detail of education I am most concerned with, but the spirit behind it. We have thought too much of methods and too little of principles. The clear purpose of the men who established our early institutions of learning was to provide means to develop the higher life of the nation. Commerce was very little in their minds. They trained large numbers of Christian ministers and teachers and missionaries, and when these men went out to make a career their minds were set not upon large salaries, upon fortune, nor even upon fame; success to them was the saving of souls, the moulding into strength and beauty the spirits of men and the elevating—by their life and teaching—of the life of the nation. We should ask ourselves,

especially at such a time as this, whether our institutions of learning, higher and lower, are remaining true to these ideals.

It is no question of subjects or of courses but a question of interpretation of life. A man's life-work does not consist in earning his bread, even though most of us spend nearly all our time doing it. Freedom from work does not mean freedom from bondage. For some men the time of leisure is the time of bondage, for this is a time when a man's vices have a chance to fasten their chains upon him. A man's life-work consists in contributing to the sum of human good; in realizing himself as an immortal soul; in emancipating his spirit and developing himself into the divine likeness. And he can do this in any condition of life as has been proved again and again by the nobler ones among us. It is no accident that the saints of the earth have been among the poor. It is the business of education to help man in this enterprise. The very first step in educating a child should be to make him realize that he is a child of God; that his life and his hope and his destiny are not to be thought of in terms of matter but of spirit, and all through the process he should be led to feel that his education is directed towards making him independent, independent of the tyranny of things, independent of fortune and of fate, the master of himself and of his passions and powers.

Such a result will not be brought about by telling him that his education is to sharpen his wits so that he can get more than his share of the good things going. And it will not be accomplished by teaching him to judge success upon a cash basis and to estimate men in the professions in proportion to their salary. Such a policy is more likely to produce a generation of needle-eyed, acquisitive men who will no doubt gain a great deal but who, in the process, will lose about all that is worth having, among other things their souls.

This is the road along which certain of our leaders in education are seeking to lead us. I do not believe the great body of teachers are so shallow as to be deceived by them. A school or a college is neither a rolling mill nor a ten-cent store. The purposes, the ambitions, and the standards are altogether different. Minds are not merchandise, and sales and profits are not in our program. The real values in education are the things money can not buy. They can not be turned into money.

But they are the things that make education worth while; with out them man himself would not be worth educating and the millions of the human family would have no more significance than a herd of cattle grazing in a luscious field, or a swarming mass of animalculæ absorbing nourishment in the interior of an over-ripe cheese.

In the account of the victory of the Roman general, Galerius, over the Persian King Narses, in the year 298, a story is told by Ammianus, a Greek historian of the Fourth Century, which, as Gibbon observes, proves the rustic but martial ignorance of the legions. A bag of shining leather filled with pearls fell into the hands of a private soldier. He carefully preserved the bag but he threw away the pearls, judging that whatever was of no use could not possibly be of any value. There is a lesson in this incident for the utilitarian. Obvious and material use is to him the standard of value and very often, judging that whatever is of no use can not possibly be of any value, he keeps the bag and throws away the pearls.

My plea today is a plea for the safeguarding of these higher values; a regard for the ultimate rather than the immediate. I would have our youth taught from their earliest childhood to value above everything the imperishable riches of the mind and the spirit. I would inspire him with the firm belief that he is a child of God, made by Him and made for Him, and I would put this spirit into all his teaching. I would interpret history to him not as a chronicle of the tawdry magnificence of kings and empires, or the sordid story of strife for the world's markets, but as a record of the age-long struggle of man to come to his spiritual inheritance. I would interpret science and literature and philosophy and art and every other activity of the mind as allies and instruments to aid man in this supreme enterprise, and I would teach him to value them all in this spirit and for this end. And I would lay upon him, even in his tender years, the obligation to bear his part in this struggle. I would make him understand that his education was no mere tool to carve out a happy fortune for himself, as if the world was his oyster and his sharpened wits the knife to open it. I would have him feel that success for him would be measured by the size of his contribution to the need of the world and the value of his education be proved by the strength and riches he could bring to bear upon

the world's weakness and the world's poverty. I would teach him to scorn the cheap philosophy of getting on as the be-all and the end-all of life and the chief end of man. And so I would save some of this generation of youth, if I could, from the belated repentance of so many of their fathers—Jew and Gentile—who have sold their spiritual birthright for a mess of pottage.

And then I would try from the very first to make him realize the common origin, the common brotherhood, and the common destiny of man. I would teach him to love his country, but I would also aim to expand his horizon and to develop in him the international mind. I would temper his self-respect with humility, I would expose to him the insensate folly and the essential weakness of arrogance, and so I would save some, if I could, from the prejudice which breeds antagonisms and the narrowness which begets strife. Above all, I would strive to purge the mind of all hate. I would clear out of our school books everything that would poison the mind of our youth against a nation once our antagonist but now our most powerful friend. Shall this country of ours become the world's breeding place for the perpetuation of ancient feuds, and the field for the sowing of the dragon's teeth of war? Even now the sacred names of Washington and Lincoln are used as the cover of a conspiracy of wholesale murder. This is the very pestilence that walketh in darkness and the destruction that wasteth at noonday.

We call this the melting-pot of the nations. Certainly the crude and diverse human elements gathered here will never be fused by the fires of passion nor by the burning of old wounds nor by any heat whatsoever, except the fires of a common devotion and a common sacrifice. We can never make a nation out of antagonisms. Our work of education is an education in forgetting as well as in remembering. We must set ourselves patiently to the task of educating all classes of our people to the conception of a new nationality made up out of many old elements but purified and refined and ennobled because it is permeated and transfused with the spirit of human liberty and of human sympathy. Such a nation will be a united nation and strength and prosperity will follow unity.

In our national history, two supreme figures have arisen, standing out above all the rest. They are Washington and

Lincoln. Both were patriots of the purest quality; both were careless of personal interest; both were passionate lovers of liberty and both stood for national unity. Yet they were almost extremely unlike. And by a kind of instinct we have raised in our national Capital a monument to Washington in the form of a single straight and lofty shaft, symbolizing the simple and severe virtues of this noble and austere man. And a monument to Lincoln, no less noble but lowlier and closer to the common ground and to the common people whom he loved and from whose loins he had sprung. And this is as it ought to be; for it, the one by his single-hearted devotion, achieved for us our national independence; the other led us out into the wider heritage of human freedom; and so if Washington became the Father of the Republic, Father Abraham became the creator of a new democracy.

We have made our way among the family of nations. The eyes of many weary and oppressed people look to us as to a land of promise. And if this is so it is because the fathers of this republic were men who loved humanity as well as freedom. Other men have labored and we have entered into the fruits of their labors. We sometimes speak of a nation under the figure of a building, laid up stone upon stone with patient and laborious care. But it is more like to a stately tree, well planted and strongly set, with its roots deep in the soil of a people's life, nourished and enriched by the toil of generations and by the blood of sacrifice, and yielding year by year its precious and perennial fruits. Let us remember that the vigor and the growth of this living organism, which we call The American Democracy, depends upon the careful conservation of the hidden sources of its life. Or to speak more plainly, the permanence of this nation will depend upon our ability to meet our changing conditions without changing the vital principles or uprooting the deep-set traditions formed out of the costly experience and the accumulated wisdom of the past. It is the mission of education to aid in this work of higher conservation. It is the special task of every man who loves his country to save for his own and for succeeding generations of Americans, this wonderful inheritance which has come to us from the hands of the dead who have bequeathed to us the fruits of their patient labor and their willing sacrifice.

September - Journal	Sept. 1st	Sept. 1st
to 1st of October, Charlesville, Ga., to Rome, Ga.	Sept. 2nd	Sept. 2nd
to 1st of October, getting ready a subscription to the Little School for the Little Boys Seminary, & for an institution to improve the education of the ministry - Engage the publisher for	Sept. 3rd	Sept. 3rd
Engage paper for the meeting of the Seminary.	Sept. 4th	Sept. 4th
to 1st of October, Fair & warm, a shower on the 1st.	Sept. 5th	Sept. 5th
to 1st of October, extract the city - paper to	Sept. 6th	Sept. 6th
to 1st of October, to Dr. Houghton (a few days ago)	Sept. 7th	Sept. 7th
to 1st of October, to paper of Mr. Hines	Sept. 8th	Sept. 8th
to 1st of October, to	Sept. 9th	Sept. 9th
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	Oct. 31st	Oct. 31st

AN ENTRY FROM THE JOURNAL OF LUTHER RICE, FOUNDER OF THE UNIVERSITY
Containing his First Reference to the Project of a College
September 1, 1818.

COMMEMORATIVE ADDRESS

At the Centennial Convocation of George Washington University

February 22, 1921

By WILLIAM BRUCE KING, A.M., LL.M.,

Member of the Board of Trustees

THE UNIVERSITY'S PATRON SAINT

The George Washington University bears the name of its patron saint. He twice commended to Congress the establishment of a university in the District of Columbia. A site for it was selected with his approval. He offered in his lifetime and gave in his will securities then of considerable value to accomplish this end.

THE FOUNDER OF THE UNIVERSITY

It remained for a private citizen to bring Washington's dream into reality. The founder of the university was a Baptist clergyman, Luther Rice, born in Massachusetts in 1783, educated at Williams College and at Andover Seminary. It is fitting that on this occasion a brief tribute should be paid to this remarkable man. While still a boy on the farm, he experienced the overwhelming religious emotions frequently described in biographies of that period and later recognized an urgent divine call to the ministry. While still in the seminary, he was instrumental in organizing the Board of Foreign Missions of the Presbyterian and Congregational churches, which remains in existence to this day. He was sent with the celebrated missionary, Adoniram Judson, to India, both as Congregationalists. These two men were convinced, by studies independently prosecuted by each of them on the voyage to India and after arrival there, that adult baptism by immersion was the only true form. They notified the Board of Foreign Missions of this conclusion; Judson went to Burmah as a Baptist missionary; and Rice, by reason of ill-health, was obliged to return to this country. He became a home missionary of the Baptist Church and spent the greater part of the rest of his life in incessant travel from New England to South Carolina, building up failing churches, establishing new ones, collecting money for missions and for education and continually preaching his faith.

His experience resulted in the conviction of the need of an educated ministry, and in 1817 he established a school for theological students in Philadelphia. He kept a diary, which is still in possession of the University, and on Tuesday, June 1, 1818, appears the first reference to his project of a college:

"Getting ready a subscription book for the Latter Day Luminary and for an Institution to improve the education of the Ministry."

In 1819 he had collected the necessary funds and bought forty-seven acres of property extending along Fourteenth Street Road from Boundary Street, now Florida Avenue, to Columbia Road, for \$7,000. This was sold, the last part in 1873, for over \$200,000. On February 1, 1821, he and his associates, chiefly other Baptist clergyman, secured the passage of an act of Congress creating the Columbian College. A college building, two professor's houses and a natural science building were erected and the work of the college was opened on January 9, 1822.

From that time to his death on September 25, 1836, Mr. Rice assumed the responsibility for the finances of the college, as treasurer and agent and later as assistant treasurer. He devoted himself indefatigably to this end, part of the time at the college and part of the time traveling. He met with varying degrees of success and suffered the harshest criticism, extending even to abuse, because his hopes outran his subscriptions. But criticism never chilled his energy for the college. He never married; his only home was a room in the college building. He never received more than his bare living expenses from the college. Apparently recognizing that his labors had worn him out, he wrote but three months before his death:

"I hope that my powers will not quite decay, until I shall have the happiness of seeing the prosperity of the Columbian College."

He died in South Carolina on one of his tours of solicitation of funds. All the property he left was his horse and buggy and these he directed to be given to the college.

Save as a lesson for the future, we forget today the faults of his optimism. We look back with reverence upon his dream of a great college at the seat of government, upon his fixed purpose to bring the college into being, upon his untiring energy in

making his purpose a reality, upon his unwearying travels and solicitation of help for the college and upon his complete devotion to its work, whether success brought praise or failure brought detraction. We salute him today as our founder and wish that he could see the great work now done upon his slight foundation.

BEGINNING AND GROWTH

The college opened with thirty-nine students. Its first commencement was on December 15, 1824. Its first graduates, with the degree of A.B., were Alexander Ewell and Albert Fairfax of Virginia and James D. Knowles of Rhode Island. The commencement was graced by the presence of President Monroe, Secretary of State John Quincy Adams, Secretary of War John C. Calhoun, Speaker of the House of Representatives Henry Clay, and by the distinguished French visitor, Marquis de La Fayette.

The Medical Department was organized in 1825. It is the eleventh medical school in seniority at this time in the United States. Its first courses were of but two years of five months each.

Theological studies were undertaken from the beginning by the removal of the school from Philadelphia, but the Theological Department was removed very shortly to Newton, Massachusetts, where it still flourishes.

The Law Department, organized in 1826, was discontinued in 1827, and not re-organized until 1865.

The Corcoran Scientific School, established in 1884, the School of Graduate Studies, established in 1893, the Teachers College, established in 1907, and the College of Engineering, established in 1906, all now form a part of the Department of Arts and Sciences.

Columbian College was for many years a small institution, as numbers are now considered. Starting with 39, the academic department in 1859, thirty-seven years later, numbered but 63, with a medical school of 43. In 1873, when the Columbian College became the Columbian University, there were but 40 in the academic department, 48 in the medical school and 108 in the law school, a total of 196. Much criticism has been frequently heard of the movement down town from the College Hill property in 1884, but the great increase in attendance

dates from that time. The academic department had reached 105 in 1885, the year after the removal, with 102 in the medical and 186 in the law school, a total of 393. In 1902, the total was 1419, 538 in the academic department, 515 in law and 366 in medicine and dentistry. The enrollment for the current year will approximate 5000. We have between 500 and 600 full-time students in the Department of Arts and Sciences, as many as in 1902 in both day and evening classes. The law school numbers over 800, including its morning classes. These facts are highly significant as guides for governing the future of the university.

Its name was changed to George Washington University in 1904.

During the early period, conditions of living were very different from those at present. In 1824 it is stated, in a pamphlet issued by the college, that tuition, library, board, fuel and light, bed and bedding, room rent, steward's salary, servants, shoe blacking, etc., would not ordinarily exceed \$200 a year, that this included all charges, except clothing, books, pocket money and vacations, and that \$10 a year would, in the opinion of the trustees, be quite as much as ought in any case be allowed a student for pocket money. As late as 1850 it was thought that the necessary college expenses of a boarding student, exclusive of books and stationery, would not exceed \$180 and, with a less expensive table, where students might dispense with tea and coffee and a few other articles, \$150 a year. The board at the higher-priced table was \$2.50 a week and at the lower price, \$1.50.

The regulations issued in 1824 did not permit a student to go beyond the college premises on Sunday without permission, except to go to church. No student could be absent from his room after nine o'clock at night, from October 1 to March 1, or after ten o'clock during the remainder of the year. For a number of years the regulations of the college provided that—

"No student is allowed to attend the theatre or any such place or to visit any barroom or similar establishment or to visit any hotel but for special and adequate reasons."

PRESIDENTS.

The first five presidents of the university were Doctors of Divinity of the Baptist Church, William Staughton (1821-

1827), Stephen Chapin (1828-1841), Joel S. Bacon (1843-1854), Joseph G. Binney (1855-1858), George W. Samson (1859-1871). They were all men of distinction in their calling, the first a very celebrated preacher, the last a noted writer on a very wide variety of subjects. The next three presidents were also Baptists, but two were laymen. Dr. James C. Welling served from 1871 to 1894, Rev. Dr. Beniah L. Whitman from 1895 to 1900, and Dr. Charles W. Needham from 1902 to 1910. The last two presidents hold allegiance to the Episcopal Church, Rear Admiral Charles H. Stockton (1910-1918), and the present president, Dr. William Miller Collier.

Dr. Welling served the longest—twenty-three years. He was a man of great learning in many fields, of broad culture, of kindly disposition, of deep piety. He was admired by all the students and loved by a large circle of notable friends. He was one of the founders of the Cosmos Club.

It may be of interest to know that the names of five of these presidents, Drs. Staughton, Chapin, Binney, Samson and Welling were for a time preserved in the names of Staughton, Chapin, Binney and Samson Streets and Welling Place, none of them far from 14th Street and Florida Avenue; but that Chapin Street alone remains, Staughton Street having been changed to Belmont Street, Binney to Girard, Samson to Church and Welling Place to University Place.

DENOMINATIONAL AFFILIATIONS.

The founder of the University, as a Baptist clergyman, naturally desired that the college should be Baptist by its charter. Careful researches by the accomplished Secretary of the University, Mr. Elmer Louis Kayser, in the legislative history of the charter granted by Congress on February 9, 1821, show that this was originally proposed, but that, when the bill was up before the House of Representatives, an amendment was offered and adopted by the House making the college undenominational. The law contains the following provision (6 Statutes at Large, p. 255):

"Sec. 7. *And be it further enacted*, That persons of every religious denomination shall be capable of being elected trustees, nor shall any person, either as president, professor, tutor, or pupil, be refused admittance into said college, or denied any of

the privileges, immunities, or advantages, thereof, for or on account of his sentiments in matters of religion."

For a short period, the Baptist Convention assumed some responsibility for the college but this was disclaimed as early as 1827. For a time the trustees were selected from those nominated by the Convention but even this was later abandoned. There never was any ownership of the college or its funds by the Baptist Church, nor did the Baptist Church ever assume, at least after 1827, any financial responsibility for its support.

During a brief period between the acts of March 18, 1898 (30 Statutes at Large, p. 328), and January 23, 1904 (33 Statutes at Large, p. 7), the charter was amended so as to require a majority of the Board of Trustees to be Baptists. That amendment was repealed in 1904 and the old provision restored. Thus during all but six of the one hundred years of the existence of the University, it has been in law undenominational. During the early period, undoubtedly Baptists were preferred for selection as president and professors, as well as trustees, notwithstanding the charter. During my life at the college, from 1874 to 1878, the active teaching work of the upper classes was done by the president and three professors. They were all Baptists, two of them clergymen. Of late years the sectarianism in fact has entirely disappeared and during the administration of the last three presidents, no question of denominational affiliation has occurred in connection with selection of trustees or professors. There are Baptists, as well as men of every creed, on the present board and in the faculty. The University occupies in fact the undenominational position conferred upon it by law.

The largest contributor to the college was William W. Corcoran, an Episcopalian; the largest contributor of the earlier years was John Withers of Alexandria, a Baptist; the largest recent contributor is A. Lisner, of the Jewish faith. Two who rendered most conspicuous financial aid at critical periods were President John Quincy Adams and General Maxwell Van Zandt Woodhull, both Unitarians.

FINANCIAL CONDITIONS

There has never been a time in the history of this university when it has been sufficiently supported financially. It has been twice on the verge of collapse. The real estate on College Hill

was paid for in cash, but the college buildings were erected partly by cash and partly on faith. A debt of \$30,000 was contracted. In spite of Mr. Rice's indefatigable efforts to secure funds, additional buildings required for the college purposes could not be erected, although a contract was made, as says his biographer, "depending alone on funds yet uncollected and even not yet subscribed." There was a struggle from the opening until 1827, when financial difficulties caused the suspension of activities for part of a year.

In a letter written by Mr. Rice about this time, he names four causes of the trouble, of which the first and principal is—"Going in debt." Surely here is a warning for the future.

The College reopened in 1828, and under Dr. Chapin's administration until 1841 there was a constant but only partly successful effort to meet the financial difficulties.

The contributions of Mr. Withers and Mr. Corcoran, and the fund of \$100,000 raised in 1875, did not supply income enough to meet the annual deficits. The policy was followed for many years of borrowing money to meet these deficits and these loans ultimately became charges against the principal which had to be liquidated at some future date. The Law School was prosperous for many years and its surplus, instead of being used to improve that school, was utilized to pay deficits in other departments.

An institution so situated as this can have but one sound policy—to require an annual balance of receipts and expenditures. Unfortunately, until the advent of President Stockton, the University was not conducted on this sound financial basis.

EFFORTS FOR EXPANSION

Beginning with the year 1902 a most vigorous effort was made under the new president, Dr. Charles W. Needham, to place the University upon a stronger footing, both educationally and financially. In the Law School the old lecture system of instruction was replaced by the modern system of law teaching, known as the Harvard or Langdell or "case" system, now followed by all the leading law schools of the country. In the Medical School the new building was occupied, a considerable addition made to the hospital and modern methods of teaching adopted. The other schools were re-organized as the Department of Arts and Sciences. The faculty was placed on salaries,

instead of on fees, and efforts were made to strengthen and increase it. The hours of instruction were changed to conform to requirements of the educational associations. All this was done that the educational work of the institution might be approved by educational authorities and thus form the basis of a plea for endowments. The attendance greatly increased.

The buildings at 15th and H Streets were completely outgrown and the property had increased too greatly in value longer to be occupied for university work. The Van Ness property was purchased for a permanent site, but later sold at a large advance to the Bureau of American Republics. There was an extremely promising opportunity to secure the Dean tract for college uses. Efforts to secure endowments were vigorously prosecuted. There was never a time in the history of the University when the prospects seemed fairer for development and great success. The president and the trustees were strongly convinced that the needs of education at the capital of the nation and the great results to be accomplished from a moderate endowment would be appreciated by wealthy men throughout the country to the extent of providing an ample fund. The response of the citizens of the District of Columbia was very considerable. It would probably have been larger had it been possible to continue the movement.

Much to the surprise of everyone, it did not attract men of large wealth throughout the country. No large endowments were offered and it became evident that the future of the institution was dependent upon local support.

Unfortunately, the extension of the University work and the costs of prosecuting the campaign for larger funds had been so great that the already depleted funds of the University were greatly reduced. An inquiry by the Attorney General disclosed the state of the endowments and an immediate halt was called upon all projects of expansion. Had these projects been successful, we would have had at the present time a well endowed university of present great accomplishments and of a secured future.

This period of the University's history has been subjected to much severe criticism. The time has now come when it should be said that the outcome of this movement was the establishment of the educational work of the University on a higher plane

than had ever before existed; that it was undertaken with the brightest prospects of success and that its failure, deeply to be regretted, was because the carefully made plans did not produce the reasonably expected results.

REORGANIZATION

The state of the University at this time was critical and there was grave question whether it would not have to close its doors entirely. Fortunately, the wisest possible guide was found in this emergency in Rear Admiral Charles H. Stockton, who had retired from the Navy for age and who had by a long and distinguished career as a naval officer and as a master of international law, earned rest and quiet. He accepted the presidency of the University and served it for nine years, the first three without salary. He placed the University, probably for the first time in its history, in a perfectly sound financial position and so left it when he retired from the presidency two years ago. There was no floating debt, and in spite of the entire want of income-producing endowments, every year showed a balance in the Treasury. It so continues, with greatly increased attendance, under the watchful guidance of our present accomplished president. I may speak for my fellow members of the Board of Trustees in saying that as long as any of us who know of the difficulties which Admiral Stockton successfully surmounted remain upon the Board, it will be our duty to see that his work shall not be undone, no matter how strong may be the temptation to speculative expansion.

My understanding is that President Stockton based his administration upon three cardinal principles:

1. That expenses must be measured by receipts and that there must be no annual deficits.
2. That the immediate future of the University is as a city university, ministering to the needs of students residing here, either permanently or temporarily.
3. That the surplus earnings of each department of the University must be reserved separately for that department.

In carrying out the first of these principles, the expenses were reduced in the most radical manner. The budget system was installed and the budget rigidly adhered to. No expense was permitted unless the money to pay for it was definitely in sight. The members of the faculty suffered heavy reductions in their

already moderate salaries and remained with the University when they could easily have found better compensation elsewhere. Too great tribute can not be paid to them for their unselfish devotion.

The purchase at this time at the University's own price by the late S. W. Woodward of the property at 15th and H Streets was one of the potent factors in saving the life of the University.

PRESENT CONDITION.

The present condition of the University is highly gratifying. The enrollment for the past two years has been by far the largest in the history of this institution. The demand for education in the District, based upon the enlargement in the operations of the national government, is steadily increasing and with it must necessarily come a steady increase in the number of students in the George Washington University.

The Law School has purchased, and partly paid for out of its accumulated surplus, a suitable and attractive building, admirably situated. The income from the Law School is sufficient to assure the establishment of a sinking fund for the payment of the indebtedness remaining upon the building. The progress of the year has shown that the purchase of the building was a sound business investment required by the needs of the Law School and justified by the increased attendance and by the greater interest of the students. The standards of instruction maintained by the school enable it to hold membership in the Association of American Law Schools. It is the second largest law school in the Association. We are fortunate in the admiration and affection felt by the students for the capacity and character of Dean Ferson.

The Medical School has achieved great success under the extremely able management of its Dean, Colonel W. C. Borden, U. S. A., Retired. In the record of the examinations by State Boards of Health it holds an enviable position, surpassing many schools of much larger equipment. It is rated as Class A by the National Association of Medical Schools. But a medical school can not be conducted except at a large cost in excess of possible receipts from students. Additional funds are today absolutely necessary. At the present time, the Medical School of the University occupies the most valuable property of the University—too valuable to be continuously used for edu-

educational purposes. Medical education is one of the primary needs of the day. The requirements for such education advance by leaps and bounds. The number of medical schools has been greatly reduced through the discouragement of those not coming up to fixed standards. It has probably been reduced now to a minimum as low as is consistent with safety. The existing medical schools ought to be strengthened. This Medical School should have an endowment of a million dollars for its own purposes, to enable it to continue to advance its work in accordance with the demands of present day medical science.

The Department of Arts and Sciences is doing the best and largest work of its history. It is entirely self-supporting. But its needs are many. First of all, the salaries of the faculty should be larger. We are subject to competition with endowed institutions. We have happily been able in recent years to make some increases so that we now are paying living salaries, but the present standard is neither a proper reward for those who have remained faithfully with us for many years nor a sufficient inducement to bring to us those men whom we desire to bring here. We need a larger number of professors to give their entire time to University work. I place the need of more money for the faculty above the need of buildings. If the quality of teaching is high, students will come to us in increasing numbers, no matter if our buildings lack architectural beauty, our rooms are bare and the benches hard.

We have completely overrun our existing buildings. Our first need is for a lecture and recitation hall. We are turning away students because we are actually wanting in room for teaching. We need laboratories. At the present day the theoretical and practical sciences require large equipment. Work of the first class can not be done without chemical, physical and biological equipment and machinery for engineering. We own a sufficient quantity of real estate in the immediate vicinity of Lisner Hall to permit the erection of all needed buildings.

It would not be possible to mention at this time the many members of the faculty to whom the University is deeply indebted, but I think that all their colleagues will justify me in selecting two veterans for special mention. Dean Wilbur of the Columbian College combines a large amount of administrative work with lectures of the highest character to the

largest classes in the University and is the personal counsellor of very many of the students. Dean Hodgkins is the dean of the Department of Arts and Sciences and of the School of Engineering and acting president in the absence of the president. The value of his services to the University can not be measured. In administrative work, in teaching, in the Alumni Association, in council with the president, in wisdom as to University policies, he is the greatest force in the daily work of the University. Deans Hodgkins and Wilbur are the nucleus around which the whole Department of Arts and Sciences is built up.

We are fortunate also in Dean Rudiger of the Teachers College and Dean Henning of the School of Graduate Studies, who have given for many years intelligent and faithful service in building up their respective departments. Two veterans of the teaching staff, Professors Schoenfeld and Swisher, should also be mentioned with gratitude and affection.

FUTURE PROSPECTS

With the present thus happy in every respect except the want of endowments, we now ask, what is the future of the University? I regard the George Washington University as having two great responsibilities and opportunities.

The first of these is to the boys and girls resident in Washington who desire a college education, but who can not get it unless they can live at home. There are many of these. The George Washington University furnishes the opportunity for such education to them. This is its primary function and its sacred duty. It is the obligation of the citizens of the District of Columbia to see that the institution is supported so that such education can be obtained by the boys and girls resident here.

Its second responsibility is national in scope. There are thousands of young people from every state in the union who enter government service here and desire to utilize their life in Washington for a few years in fitting themselves for broader citizenship at their homes. They are the people who flock in great numbers to the Law School and to the Department of Arts and Sciences for the late afternoon classes. Those who have taught here and elsewhere all agree that these are an unequaled body of students. There are men and women who are attending the university courses at their own cost, giving up

their leisure, because they want the advanced education. It was well said by one of our own undergraduates, Mr. Michael A. Mussman, presiding at one of these centennial exercises:

"While we are earning our daily bread, this university enables us to drink of the fountain of knowledge." We are helping every part of the country by the education which these earnest students take back to their own homes. It is a matter of great pride to all those concerned in the University that they are thus rendering a national service.

RESPONSIBILITY FOR THE UNIVERSITY.

In my judgment, the responsibility for the continuance and extension of this University is primarily with the citizens of the District of Columbia. It is solely theirs, in so far as the undergraduate instruction of the boys and girls of this District is concerned. The responsibility for giving higher education to the government employees is one of the duties which our citizens should discharge in consideration of the benefits derived from the presence of the government here.

We are not a wealthy city, but there is sufficient wealth to give to George Washington University a reasonable endowment which will pay the faculty better, enlarge the teaching staff, furnish plain but sufficient accommodations for the students and relieve the administrative officers from the pressing fear of deficits which always hangs over them and which chills all efforts for needed expansion. When the District of Columbia has itself discharged its full responsibilities and has placed this institution upon a stronger financial basis, the time will come when we may look to men of large wealth throughout the country to extend generous aid to the University and make it in all respects a great National University.

In the immediate future I look to see the peculiarly local work which we are now doing greatly enlarged and improved. After that has been done by our citizenship here, I look to see a great university to which students, undergraduate and graduate, from all parts of the country will come for the purpose of giving their entire time to University work. That must come after the District of Columbia has in greater measure discharged the two principal duties that lie upon us in our present work.



WILLIAM MILLER COLLIER
President of The George Washington University

Words Used by President Collier in Conferring Honorary Degrees at the Centennial Convocation

MASTER OF ARTS

CLIFFORD KENNEDY BERRYMAN, cartoonist of The Washington Evening Star, enjoying nation-wide repute and assured of enduring fame: In you a natural genius for drawing is combined with a wit free from venom and with a soul of unsullied purity. Your illustrations are remarkable for their timeliness, their aptness, their humor, their kindliness, their refinement. You create the smile without the sting. You laugh and the whole world laughs with you. 'Tis you who have made clear Carlyle's words:

"How much lies in Laughter; the cipher key, wherewith we decipher the whole man."

MASTER OF ARTS

PERMEAL JANE FRENCH, Dean of Women of the State University of Idaho; a tactful disciplinarian; an inspiring teacher; a powerful influence for higher education and nobler womanhood.

DOCTOR OF DIVINITY

ROBERT HASTINGS NICHOLS, Graduate of Yale; postgraduate student at Oxford; for many years a devoted and beloved pastor; today, Professor of Church History in Auburn Theological Seminary.

DOCTOR OF HUMANE LETTERS

CHARLES HENRY BETTS: Former President of The New York State Press Association. Having supplemented by extensive, serious and systematic reading the course of study begun by you in college but interrupted by adverse financial circumstances you have acquired a broad, liberal education and a special familiarity with political and sociological questions which you have discussed in the press and in the legislature with keen intelligence, great vigor, and rare consistency. Believing that the function of a newspaper is not only to give publicity to facts but also to deduce principles from them and to urge action in accordance therewith, you have long been widely known as the editor of a country weekly of exceptional worth and influence. Wielding a trenchant pen you have been the doughty champion of the causes that commended themselves to your judgment and the determined foe of that which you considered fallacious.

This degree is conferred upon you as a recognition of your own merits and as a tribute to the power of the country newspapers of the United States, of which the brilliant editor of the metropolitan daily of greatest circulation has truly said:

"The country newspaper is the national public forum; it is the concentrated expression of local thought. The country newspapers combined *are* the people and the power of the country The man who edits a country newspaper and possesses his readers' confidence is the school teacher of grown-up men and women There are at least fifty million human beings in the United States to whom the voice of the country editor means more than any other voice in the nation."

DOCTOR OF HUMANE LETTERS

SAMUEL RICHARD FULLER: Former student of Trinity College whose delegate you are today at this Centennial Observance; Honorary Master of Arts of Union College; Lover of Literature; Classical scholar of preeminent distinction; Lecturer who makes the age of Caesar, Cicero, Antony and Cleopatra, live again for your charmed listeners.

Not preoccupied, however, with the dead past but conscious of the living present and keenly sympathetic with the trials and sufferings of people of today. Unselfishly raising, by your lectures, tens of thousands of dollars for the relief of French women of gentle birth who were in poignant distress yet who were too sensitive to appeal for aid; administering this relief in a way that never wounded sensibilities thus doing a nice thing in a nice way.

DOCTOR OF HUMANE LETTERS

ALANSON BIGELOW HOUGHTON: Bachelor of Arts of Harvard; postgraduate student at various Continental universities; trustee of Hobart College and also of St. Stephen's College, by both of which you have been delegated to attend this Centennial Observance; President of the Board of Religious Education of the Episcopal Diocese of Western New York. Possessed of an innate love of letters, you have, amidst the responsibilities of the management of a vast industrial enterprise and the duties incident to your position as a Member of Congress, never neglected the cultural nor permitted the spiritual to be subordinated to the material.

DOCTOR OF HUMANE LETTERS

GEORGE DUDLEY SEYMOUR: Bachelor of Laws and Master of Laws of the George Washington University; Honorary Master of Arts of Yale University; lawyer of recognized special ability in patent cases; lover and patron of the fine arts; public-spirited citizen; generous donor of many funds for the preservation of buildings and objects of great historical interest; to you, in particular, we are indebted for the preservation of the home of Nathan Hale; author of numerous books relating to our Colonial and Revolutionary periods.

DOCTOR OF LETTERS

FRANCES PARKINSON KEYES: Vice-President of The League of American Pen Women; frequent contributor to many reviews and periodicals of the highest literary standards; author of novels that are filled with the breath of that pure, wholesome, rural life which is the strength of America and its institutions.

DOCTOR OF LETTERS

JULIA MARLOWE SOTHERN: Foremost living American actress in tragic and romantic rôles; greatest interpretress of the immortal Bard of Avon. You have made letters so live in the hearts of myriads and have so instructed and inspired them that all who have seen and heard you, with universal admiration and gratitude, exclaim, in the couplet of Thomas Heywood,

"The World's a theatre, the earth a stage,
Which God and Nature do with actors fill."

DOCTOR OF SCIENCE

FREDERICK VERNON COVILLE: Curator of the United States National Herbarium since 1893; entitled to the credit for the foundation of the Desert Botanical Laboratory; fellow A.A.A.S.; former President of the Botanical Society of America; author of numerous books and papers on botanical subjects. Your investigations into the economic condition of the public grazing lands, on blueberry culture, and on the agricultural utilization of acid soils, have made the whole world your debtor.

DOCTOR OF SCIENCE

HOWARD LINCOLN HODGKINS: Dean of the Department of Arts and Sciences and Dean of the School of Engineering of The George Washington University, in which you long ago earned your degrees of A.B., A.M., and Ph.D., and to whose

advancement you have consecrated your whole life, not only as a teacher of physics and mathematics in it, in various ranks, for thirty-seven years, but also as a loyal and zealous worker in its Alumni Association, in which you have, with fidelity, filled every one of its offices.

DOCTOR OF SCIENCE

CHARLES WILLIAMSON RICHARDSON: Graduate of the Medical School of The George Washington University. For thirty years, professor of laryngology and otology in it and at the same time in active practice in Washington; universally recognized as a leading specialist in these branches; writer of many authoritative books upon medical subjects; member, fellow and, at various times, president of numerous medical societies of national scope. During the war, Director of the Section of Defects of Hearing and Speech in the office of the Surgeon General; now a Colonel in the Medical Reserve Corps.

DOCTOR OF SCIENCE

FRANK SPRINGER: Palaeontologist; writer of numerous authoritative works, the result of your own painstaking investigations; generous supporter of the work of archaeological excavation in New Mexico.

DOCTOR OF LAWS

MABEL THORPE BOARDMAN: In your long years of service in directing the work of The American Red Cross, you have displayed not only the strength and the beauty of woman's devotion and the tenderness of woman's sympathy with the suffering, but great firmness of mind and superior administrative talent.

Today, as the first woman to hold the high office of Commissioner of the District of Columbia, you bring to the discharge of your duties, woman's intuition and keen perception, supplemented by faculties well-trained and by an exalted conception of civic duty.

DOCTOR OF LAWS

FREDERICK CARLOS FERRY: President of Hamilton College; lately President of The Association of American Colleges; scholar distinguished for accuracy of knowledge, breadth of learning, and soundness of judgment; beloved and inspiring teacher; able and just college administrator.

DOCTOR OF LAWS

GEORGE HIGGINS MOSES: For many years actively connected with one of New England's influential newspapers, cultivating through it a natural aptitude for gathering facts and realizing their significance, and developing to a high degree the power of seeing and foreseeing. Appointed Minister to a high post in the American diplomatic service during a most trying period, these trained faculties made you an acute observer, a quick-witted negotiator, a fitting and well-fitted representative of a country that works in the open and which will not be caught asleep.

Elected and triumphantly re-elected a United States Senator from the State of New Hampshire, you have ever been alert and active, vigilant and virile.

Open-eyed and open-minded in the consideration of all questions, you have been unwilling that your country, in its foreign relations, should leap in the dark. In national affairs you have preferred to guide your steps with the lamp of experience, considering the American Constitution and established American institutions as safe beacons. Ever insisting that these lights shall not go out, it is never difficult to tell where Moses was, is, or will be.

DOCTOR OF LAWS

LUTHER WRIGHT MOTT: For more than ten years a Member of Congress from the State of New York; influential member of the highly important Ways and Means Committee; faithful representative; intelligent and industrious legislator; in recognition of your own loyal and valuable public service and as a tribute by this University to the oldest University in the United States, Harvard, of which you are an honored graduate and by which you have been accredited as delegate to this Centennial observance.

DOCTOR OF LAWS

CHARLES WELLMAN PARKS: Former student of this University; graduate of The Rensselaer Polytechnic Institute. For many years successful in professional work in civil life. Dedicating your talents to your country's service, you have rendered services of such value that you have been deservedly made Rear Admiral, Chief of Civil Engineers, Chief of the Bureau of

Docks and Yards, in its Navy, and have been awarded the Golden Palms by an allied nation.

DOCTOR OF LAWS

KEY PITTMAN: Former student at Southwestern Presbyterian College. Pioneer settler in the organized portions of Alaska, leader in a movement to establish law and order in a section then without duly constituted political institutions. By diligent study acquiring a knowledge of the law and becoming a recognized expert in certain branches of it, enjoying a large practice; now serving your second term as a United States Senator from the State of Nevada; wise law-maker because your personal experiences have made you conscious of the needs of the people, and your own struggles with the realities of life have given you a full appreciation of the force of facts to which laws must be adapted if they are to be beneficial.

DOCTOR OF LAWS

CHARLES ALEXANDER RICHMOND: Graduate of Princeton. Justly honored with doctorates of law and divinity by many colleges. A pulpit orator of convincing power; President of Union College; Chancellor of Union University; foremost among the great teachers and the able college administrators of the land.

DOCTOR OF LAWS

ARTHUR CHARLES ROUNDS: Graduate and trustee of Amherst College; Master of Arts and Bachelor of Laws from Harvard University; Master of Laws, honorary, from New York University; for several years a professor in its Law School; long prominent in the active practice of your profession in New York City; a thorough student of the law as a science; a consistent believer in it as a definition of rights; a living exponent of its highest ethical principles.

DOCTOR OF LAWS

BERTRAND HOLLIS SNELL: Bachelor of Arts of Amherst College; trustee and treasurer of Clarkson College of Technology which you represent at this Centennial; trustee of The New York State Normal School at Potsdam; generous giver of time and money to worthy causes; deservedly successful in the executive control of large business enterprises; a power in the political life of the Empire State; a highly influential member of the National House of Representatives.

DOCTOR OF LAWS

GEORGE SUTHERLAND: Former Senator of the United States from the State of Utah; former President of the American Bar Association; foremost amongst the modern expounders of Constitutional Law; consistent advocate of strict adherence to the American system of Government as absolutely essential to individual liberty, national security and international harmony.

DOCTOR OF LAWS

ROBERT MEANS THOMPSON: Graduate of the United States Naval Academy; for several years in the Service. After retiring from it, you have continued to maintain an active interest in it as evidenced by your efficient and unselfish work as President of The Navy League. Taking up the study of law, you received from Harvard your LL.B. In civil life, you have been not only a lawyer, but a developer of the mineral resources of the country and a financier; at all times you have been conscious of your civic duties and tireless in your efforts to discharge them; generous supporter of every organization and every movement aiming to protect American interests, preserve American institutions and promote American ideals, especially of those that seek to perpetuate Constitutional Government. In you we recognize the highest type of a public-spirited citizen in private life.

DOCTOR OF LAWS

VITTORIO ROLANDI RICCI: Jurist of profound learning and international repute; many years a Senator in the Parliament of Italy; newly appointed Ambassador of that country to the United States; bearer of its message of good will; advocate of closer economic relations as a means of promoting mutual interests; in recognition of your own erudition and eminence and as an expression of our realization of the eternal and immeasurable debt which the whole world owes to that land of Arts and Letters and Science in which the Renaissance of learning took place and in which, in the hoary ages of the past, was established the first of all Universities still existing that were incorporated by imperial charter, the University of Bologna, of which you are the duly accredited delegate to this Centennial Observance.

DOCTOR OF LAWS

BELTRAN MATHIEU: Graduate of the University of Chile which has honored this University by duly accrediting you as its

delegate to this Centennial observance; many years the representative of your country at important posts in its diplomatic service; minister in various cabinets of its government; now Chilean Ambassador at Washington and Senior in point of length of service or of rank of all the Latin-American diplomatic representatives accredited to the United States: In recognition of your own high attainments and signal achievements and as an evidence of our deep appreciation of the contribution to civilization and culture made by the Latin-American nations, and in the confident hope of closer intellectual and social relations between them and the peoples of the Anglo-Saxon countries.

DOCTOR OF LAWS

JEAN ADRIEN ANTOINE JULES JUSSEURAND: Scholar of encyclopedic information, whom colleges and learned societies delight to enroll in their membership; diplomat by natural talent and by a lifetime of varied training, having rendered to your country and to civilization services of imperishable value; Ambassador of France.

This university, mindful of the fact that Lafayette was present at its first commencement, feels proudly privileged, today, at its Centennial anniversary, to confer this degree upon you, France's representative at Washington. It confers it because of your own preeminent attainments and surpassing achievements, and as its tribute of gratitude to the great nation whose pervasive influence is spreading the ideal of liberty, equality and fraternity throughout the whole world, daily making it more true that every lover of liberty loves two lands, his own and France.

JUNIOR WEEK

Junior Week, part of the Centennial celebration of the University, included a reception, the presentation of a play and the annual Junior Class promenade. These events, which were brilliantly successful, were in charge of the Junior Week Committee, composed of J. Foster Hagen, J. Fuller Spoerri, Ralph S. Nagle, Grace Wormsley, Howard C. Espey and Robert M. Taylor.

The first event of Junior Week was the Reception tendered members of the University and invited guests of the Convocation at the Raleigh Hotel. During the afternoon more than seven hundred and fifty members of the faculty and of the student body and guests from other institutions were present. The Raleigh ballroom was tastefully decorated for the occasion. The University Glee Club rendered several selections and George A. Myers offered vocal numbers which were well received. Professor Dewitt Clinton Croissant delivered a brief address, contrasting conditions in the University today with those which obtained during his student days. Professor Croissant spoke of the magnificent work done by the faculty of George Washington University and paid a glowing tribute to the men who had maintained those high standards which had made the University what it is today. Dean and Mrs. Howard L. Hodgkins, Dean and Mrs. William C. Borden, Dean William Allen Wilbur and Dean W. C. Ruediger were in the receiving line during the reception. Owing to the numerous duties connected with the entertainment of guests and the arrangement of the Convocation, the President and the Secretary were unable to attend the reception but sent their regrets. There was dancing during and after the reception. The committee in charge was composed of Howard E. Espey, Chairman, Mildred Eagan, Marion Holliday, Thomas E. Lodge, Robert Marshall and Robert Morgan.

On the night of Thursday, February 24th, the most brilliant and colorful Promenade ever given at the University was held at Rauscher's. More than two hundred and fifty couples were in attendance. The Juniors were signally honored by the presence of President and Mrs. William Miller Collier, who stayed during the greater part of the evening. Eight fraternity boxes and three class boxes beautifully and tastefully decorated in the University and fraternity colors added variety and pic-

turesque attraction to the setting for the promenade. The prediction has been adequately fulfilled that the class of 1923, of which Robert W. Pulliam is president, would honor the University in a manner which can hardly be surpassed in future years. The success of the affair is due to the efforts of J. Fuller Spoerri, Chairman of the Junior Promenade, and a most capable committee aided by the council of class presidents. The classes of '21, '22 and '23 were represented by beautifully decorated boxes as were also Sigma Chi, Kappa Sigma, Theta Delta Chi, Sigma Phi Epsilon, Delta Tau Delta, Phi Sigma Kappa, Sigma Nu and Sigma Alpha Epsilon from among the fraternities in the University. Handsome souvenir programmes were given out at the promenade. The list of patrons and patronesses included the President of the University and Mrs. Collier, the Secretary of the University, Professor and Mrs. D. C. Croissant and Mr. and Mrs. Bryan Morse.

On Monday night, February 28, in the Central High School Auditorium the Junior Class presented Clyde Fitch's drama, "The Truth," to an appreciative gathering of University officials, members of the faculty, guests and students, who received the play and the efforts of the individuals participating in it in no uncertain manner. The cast for the production consisted of Geraldine Barlow, in the part of Becky, the heroine; Vivian Bradley, as the jealous wife; Jean Jussen, as a mutual friend; Phoebe Gates, as the socially inclined owner of the Baltimore boarding house; Omar Humphrey, as the husband of Becky; Howard C. Espey as the father of Becky; D. Malcolm Hodge, as the husband in love with Becky; and Russell I. Whyte, as the butler. The entire production was in charge of Professor D. C. Croissant, assisted by a committee of which Ralph G. Nagle was chairman.



Photograph by John A. Mann, '20

LISNER HALL AND OTHER BUILDINGS OF THE ARTS AND SCIENCES GROUP
G Street between Twentieth and Twenty-First Streets

THE DEPARTMENT OF ARTS AND SCIENCES

The Department of Arts and Sciences as now organized consists of

The Graduate School
Columbian College
College of Engineering
Teachers College

In addition to these sub-divisions there is the Summer School which has a large attendance.

The enrollment in this Department has increased during the past ten years from 1270 to 3072 students during the regular session, while the Summer School which held its fifth session in 1920 had 763 students.

Columbian College which conducts the usual courses in liberal arts leading to the degree of Bachelor of Arts, perpetuates the original name of the University and has, therefore, had a life of one hundred years. The College of Engineering, organized on the present plan in 1905 is the successor of the Corcoran Scientific School which was established in 1884. The Graduate School was organized in 1887, and Teachers College, originally organized as the Division of Education in 1907, has had its present organization since 1909.

These divisions of the Department of Arts and Sciences are largely for convenience of administration, and while each has its Faculty, headed by a Dean, the Department as a whole has a Faculty which includes all of the regular teaching staff in all of the sub-divisions. The students are not segregated, but mingle in the same classes, according to their registration in required or elective studies.

The group system prevails in Columbian College and students are classified in six groups—Latin, Modern Languages, Natural Science, Political Science, Pre-Medical and Commerce.

In each group about one-half the work is prescribed and one-half elective.

In the College of Engineering there are offered courses leading to the degree of Bachelor of Science in Civil, Chemical, Electrical and Mechanical Engineering, and also in General Chemistry and in Architecture.

Teachers College requires courses in Education and Educational Psychology, and confers the degree of Bachelor of Arts and the Bachelor's Diploma in Education.

The teaching staff of the Department consists of 32 full-time instructors and 46 part-time instructors together with many laboratory assistants.

When the University moved to the center of the city in 1884, it was largely for the purpose of meeting the needs and providing a college and university education for the clerks in the government service. With the development of the educational requirements for employment in the government service there have come to Washington a large number of young men and women, who have had a high school education and often one or more years of college work. These well-trained and ambitious young people constitute a body of students of unusual merit who flock to the University for further training.

The Department of Arts and Sciences offers courses in every subject of instruction between the hours of five and seven, immediately after the closing of the government departments, and it is possible for a student to complete a regular course and obtain a degree by attending only at those hours. Because of the limited hours for classes and the severe standards maintained, it usually requires six years for a part-time student to complete the course.

During the year before the University established itself in the city, there were 37 students, and there were given 36 courses with a total of 82 recitation or laboratory periods a week. During the current year there have been 3072 students and there are given 270 courses with a total of 708 recitation or laboratory periods a week—that means there are 118 classes in session each day. In 1883, the 37 students were full-time students. During the present year there have been about 600 full-time students and 2400 part-time students.

The increase in attendance during the past three years has been so great that it has overtaxed the buildings available. There is large demand for additional courses in Commerce, Business Administration, Political Science, Accountancy, Domestic Science, and other subjects. Although the University has purchased or rented all suitable buildings near the main building, it is unable to establish these new courses because of lack of room. It owns two parcels of land, each containing about 12,000 square feet of ground, directly contiguous to the ground on which its main buildings are located and will erect new buildings as soon as funds are available. Until that comes to pass, its growth is stopped, and it is prevented from doing its duty to those who seek an education under its Faculty.



THE UNIVERSITY HOSPITAL
1339 H Street Northwest

THE MEDICAL SCHOOL

The Medical School is now in its ninety-sixth year, having been opened in March, 1825. It is the eleventh medical teaching institution in the United States, in chronological order of establishment, and has given degrees to 1,460 graduates in Medicine.

Like many other medical schools in this country, it was first independent. Later it was loosely affiliated with the Columbian University and finally became an integral part of that Institution, sometime before the University, by virtue of the act of Congress, approved January 23, 1904, changed its name to The George Washington University.

In 1898, in order to increase the facilities for clinical teaching, a University Hospital and University Dispensary were established.

For many years the school had late afternoon and evening sessions, but in 1908 the University directed that all such classes be discontinued and that day sessions only should be held. This was the first step toward modernizing the school.

In 1902, the old Medical building, in which the teaching had been conducted since 1867, was replaced by the larger and more commodious structure which the school now occupies, located at 1335 H Street, about one block and a half east of The Shoreham Hotel. In 1903 an addition materially enlarging the hospital was opened.

In 1909, new ordinances were adopted by which the school, the hospital and the dispensary were completely amalgamated according to the most approved ideas for medical teaching.

The Department of Medicine of the University thus became a complete medical educational unit consisting of a Medical School, a University Hospital and a University Dispensary. The Hospital and Dispensary came under the same management as the School and the clinical teachers in the School took charge of the clinics in the Hospital and Dispensary so that the work in School, Hospital and Dispensary was completely correlated.

In 1910, appeared the epoch-making classification of Medical Colleges by the Council on Education of the American Medical Association.

The reorganization and betterment of the Medical School was recognized by the Council and the school was classed "A"—



THE MEDICAL SCHOOL
1335 H Street Northwest

(the highest classification) a standing which it has since maintained.

The effect of higher standards in the school was shown by a marked decrease in matriculants for, while in 1908 there had been thirty-two freshmen, only thirteen registered in 1909. The improvement in the school soon evidenced itself. In 1910, the freshmen class numbered twenty-five; in 1911, twenty-nine; in 1912, forty-six; and in 1913, seventy-six. In 1914, the pre-medical entrance requirement was raised to one year of specified college work and to meet this, a premedical course had, by advice of the Medical School, been instituted in the Department of Arts and Sciences (Columbian College) of the University.

The raising of entrance standard, as was expected, caused a drop in first-year students, twenty-two being matriculated in 1914. In three years this number had increased to forty-two, when to meet the demands of the American Medical Association the entrance requirements were raised to two years of college work and in 1918, the number of freshmen dropped to twenty-three. The number in the present session, 1920-21, is fifty and the total number of medical students is one hundred and thirteen.



THE COLLEGE OF PHARMACY AND THE EXPLOSIVES AND DYE
STUFFS LABORATORY
808 I Street Northwest

THE SCHOOL OF PHARMACY

The Columbia Pharmaceutical Association of the District of Columbia was organized in 1871 with the avowed purpose of establishing a school of pharmacy. A charter was procured under the provisions of an act of Congress for the incorporation of institutions of learning and the Association then disbanded and immediately reorganized as the National College of Pharmacy, which opened its doors for the reception of students on November 11, 1872.

In the beginning its classes were largely augmented by the transfer of students from the School of Pharmacy of the National Medical College of the Columbian University of Washington, D. C.

The courses of instruction at first consisted of lectures in chemistry, toxicology, materia medica, botany and pharmacy, to which were later added obligatory courses in analytical chemistry and pharmaceutical laboratory work. The time allotted to instruction was at first six hours per week for a period of thirty-two weeks, but gradually the time and subjects were extended until the total didactic and laboratory work amounted to over thirteen hundred and sixty hours.

In 1888, owing to the growth in classes and the necessity for increasing the curriculum, the trustees of the National College of Pharmacy, acquired the property now occupied by the school at 808 I St. N. W., and erected a building that met all the requirements, which resulted from the steady increase in student body.

In 1893 the trustees ordered an extension of the curriculum and required that certain courses should be given during the day and that students should complete a course covering three years of thirty-two weeks each before becoming eligible for graduation. Candidates for admission were further required to submit evidence of a complete high-school education which requirement made the National College of Pharmacy the first of the colleges of pharmacy in the United States to adopt this advanced requirement.

In 1906 the National College of Pharmacy became affiliated with the George Washington University under the charter granted to the University by Congress. This affiliation was continued up to the time of entrance of the United States into the Great War in 1917.

The war disclosed that there were certain deficiencies in the course of pharmaceutical instruction, to overcome which it was deemed necessary to reorganize the pharmacy curriculum and to bring about a closer relation between the College of Pharmacy and the George Washington University.

As a result, the old College of Pharmacy has now become a part of the University, being incorporated in the Department of Medicine, and known as the School of Pharmacy. It has adopted a broad and completely reorganized curriculum, divided into an Arts and Sciences group, and a more or less purely Pharmaceutical group, which gives to the student not only pharmacy, but a broad and liberal education in arts and allied science. Upon satisfactory completion of such a curriculum the student is eligible for the degree of Bachelor of Science in Pharmacy. This enables the graduate to continue work in the Graduate School and, should he desire, he may enter the Medical School without further preparation in pre-medical subjects. This curriculum now covers four academic years of didactic and laboratory work embracing thirty-three hundred hours of instruction.

The adoption of this curriculum by the School of Pharmacy of the George Washington University gives to it the distinction of being the first of its kind in the United States to broaden its scope so extensively and so nearly to reach the ideal course as outlined by the National Pharmaceutical Association.

Instruction in purely pharmaceutical subjects is given in the Pharmacy Building, 808 I St. N. W., a three-story and basement structure designed and built in accordance with the ideas of the National College of Pharmacy Trustees, for educational purposes and provided with lecture halls and laboratories.

Since many states are now requiring all applicants for licenses to practice pharmacy to be graduates of a reputable school of pharmacy, the policy adopted by the school is to give a comprehensive, well-graded and well-proportioned course, one that will adequately prepare the graduate to practice modern pharmacy and to meet the requirements of the National Pharmaceutical Association and the State Pharmaceutical Boards.



THE LAW SCHOOL
1435 K Street Northwest

THE LAW SCHOOL

An Introspection

On the occasion of the one-hundredth anniversary of the foundation of our University, the Law School may well pause for introspection and to consider whether it is fulfilling its mission. In doing this, mention will be made of our physical equipment, faculty, students and alumni.

We are finally housed in a creditable building, ideally located and well adapted to our needs. This marks the achievement of a goal long cherished by students, alumni, faculty, and trustees.

The first payment on the building has been made from surplus earnings of the Law School and small donations accumulated over a period of many years. For the balance of the purchase price the trustees have generously pledged the credit of the University. This Law School receives no public aid, and its endowment is small. The large stream of students for many years and the judicious management by our trustees of small sums have made possible our splendid home.

Our physical equipment is now, for the first time in many years, adequate and suitable to our needs. The adaptability of the building to its use could not be fully determined until it had been tried. We have now occupied the newly acquired law building long enough to say with assurance that it meets our requirements. Our Law Library, containing more than 8,000 volumes, is open and available to students each day from 9 a. m. to 11 p. m., and on Sundays from 2 to 6 p. m. Our furniture, while plain, is in good repair and, in so far as utility is concerned, is of the most approved type. In the classrooms movable chairs and desks have supplanted the old tablet-arm chairs. Our location combines the advantages of being one of the most beautiful in Washington with being easily accessible. On the whole, our physical equipment is adequate and creditable.

There have been a few changes in the personnel of our faculty from year to year, but the quality of the faculty has been fairly constant. The present faculty is composed of men who are not only able, but who are devoted to their work in a marked degree. Particular mention should be made of Professors Clephane, Earnest, Brandenburg, Peter, Latimer, and Justice Stafford, because of their long, unselfish service. Our faculty

has one element of strength believed to be unique—it is well balanced between resident teachers and lawyers who are practicing or on the Bench. Experience has demonstrated that substantive law courses can best be given by men who devote themselves exclusively to teaching, while the practice courses are best given by men in the practice.

Our student body has grown until we are the second school in size in the Association of American Law Schools. Harvard alone is larger. Nine hundred students have registered this year. This great number of students is gratifying, but of far more significance than their number is their character and ability. The student body as a whole is an earnest, well-prepared body of men and women. Their morale is excellent. Among them it is "fashionable to work." They are indeed the stuff of which real lawyers are made.

For many years the high standards of this school were maintained only by great sacrifice in its attendance. Young men were prone to choose an easier approach to their degree, always available, without realizing the futility of such degrees. The methods of this school have gradually come to be appreciated, and its attendance has accordingly increased. Our students, no less than our faculty and trustees, desire high standards honestly enforced, thorough instruction, and a jealous guarding of degrees. Indeed, it appears that these very standards are the strongest attractions we offer to the discriminating student. It thus appears that expediency, as well as our duty to the public and to our students, requires strict adherence in the future to these same high standards which our trustees and faculty have so harmoniously agreed upon in the past.

Our graduates number more than 2,500. They are playing a prominent part in the political life of the nation, as well as in our chosen profession. They have occupied positions in the Cabinet, in Congress and on the Bench. They have served their country as Admirals, Generals, Governors and Ambassadors. The honorable service they are rendering reflects credit on themselves and on their school.

We now have a building to which our alumni may point without apology; but a handsome building is not the sole or even the chief factor in making up a law school. The more important part of our institution is that composite, intangible thing resting

upon the success and loyalty of our alumni; the ability and morale of our students; the strength and devotion of our faculty; and the wisdom and foresight of our trustees. An acquaintance with all these factors gained through nine years of service here leads me to a strong conviction that we shall be able to make this Law School a great and leading power in advancing the legal profession.

It is our earnest desire that our alumni may not only point to the home of this Law School with pride, but that they may take pride in bearing its degree; and to that end it must be our care to guard those degrees. There is no restraint on the conferring of degrees, and so long as this is true, charlatan schools will no doubt continue to traffic in them. A degree, under these conditions, may mean much or nothing, depending entirely on the school conferring it. Each institution establishes the value and significance of its own degree.

While satisfactory progress has been made, a great deal remains to be done. Our standards should be still higher; our faculty should be better paid, and thus stabilized; our library should be increased; and numerous class sections should be added. It is my earnest desire that the alumni and friends of the Law School be informed of the aims and purposes of the school and that they give their support for the continued progress of the school. The loyalty of the alumni in the past leads me confidently to expect their cooperation in the future.

The Law School is not operated for financial gain or for any other reason than to render helpful service to its students and to the public. The extent to which it has fulfilled that mission may to some extent appear from the above rough outlines of its achievements. The introspection is encouraging. We are fulfilling our mission. As a constituent part of the University, we may even feel a measure of pride on its one hundredth birthday.

THE NEW LAW SCHOOL HOME

Last spring the University purchased for the Law School the building which was formerly the home of the Department of Justice. It is a four-story and basement structure, built of brownstone and brick, and overlooks McPherson Square.

The interior of the building has been entirely remodeled. Four large classrooms have been supplied on the third and fourth floors. Two of these rooms are each arranged to seat

over 200 students, and the other two to seat 125 each. The second floor is fitted up for the Law Library, six professors' offices, and a women's rest room. The first floor is used for the administration offices and moot court rooms, of which there are four, with a total seating capacity of over 200. The basement is devoted to a men's lounging room, one large classroom, locker space, and storage purposes.

The building easily accommodates 1,000 students, so that it is sufficiently large to house the entire Law School enrollment, which last year was so large that overflow classes had to be held in the Medical School Building.

The history of the new site is quite interesting. The larger portion of the present building, which originally consisted of two separate houses, was erected as a home by Senator Palmer of Michigan. It was contracted for in 1884 and completed in 1886 at a cost of \$90,000.00, exclusive of the ground. The cost was so large because of the character of the material and workmanship, which were the finest that could be secured. The inside woodwork is solid mahogany. The architect was John R. Thomas, and the builder Robert L. Fleming, probably the best builder in the city at that time.

For some time after 1896, the premises were owned by T. S. Schneider, who constructed the west addition, remodeled the building as an apartment house, and named it the "Baltic." From 1899 to 1916 the Department of Justice occupied the premises, and for a time, during 1918, the War Risk Insurance Bureau's executive offices were located there.

THE ALUMNI ROOM

A large room on the main floor of the Law School Building has been named the "Alumni Room," and especially fitted up and set aside for the use of any student, alumni or educational organization. It will seat more than 100 persons.

Since the beginning of school the Alumni Room has been in great demand, being used by the Columbian Debating Society, Washington Shakespeare Society, Columbian Women, Daughters of the American Revolution, Washington Federation of Women's Clubs, Phi Delta Phi, Phi Alpha Delta, and the Masonic Club.

As the room has been especially set aside for their use, alumni are urged to use it whenever they find the need of a small auditorium or a place for the meeting of any organization to which alumni belong.

THE LOUNGE AND REST ROOM

The Law School now has a completely finished Men's Lounge and Women's Rest Room. The furnishing of these rooms was made possible mainly through the efforts of Mrs. Louis Hertle, Mrs. John P. Earnest, and Mrs. Merton L. Ferson, who not only raised several hundred dollars among the alumni and friends of the Law School, but also personally superintended the purchasing and installation of the fittings.

The students also contributed generously to the furnishing fund, raising over \$400. Mrs. Hertle very kindly donated several very good paintings and engravings.

The men have a large room, done in red, with red hangings, red reading lamps, and with the glow of the fireplace reflected in the brightly-colored paintings on the wall. Comfortable lounging chairs, smoking stands and a thick velvet rug give a luxurious effect.

The women's room, which is on the second floor, has a fine outlook on McPherson Square. The color scheme is yellow and black. Gold cloth curtains have been hung at the bay window, which also has a fine window seat made of black and colored chintz, with cushions to match. Two large wicker armchairs with chintz cushions and a couch covered with the same material make for comfort. A thick rug, two Windsor chairs, a most attractive mahogany table, and a smart table lamp with a gold shade complete the furnishings.

ATTENDANCE

The 1920-21 enrollment in the Law School is the largest in its history. The gross registration on March 19, 1921, was 896, an increase of 145 over the registration for the same date last year. Of this number a little over 15 per cent are women. Every class is larger this year than last, except that of the first year. There are approximately 100 students in the forenoon classes, exclusive of the classes from 7:50 to 8:40 a. m.

As a full third-year morning curriculum will be added next year, it is expected that the registration in the forenoon classes will then exceed 135 full-time students. First and second-year morning subjects were offered this year. The morning classes were suspended during the war, and resumed last year when only first-year work was given.



THE LAW SCHOOL
The Library



The Men's Lounge

This year's registration is the largest of any school in the Association of American Law Schools, except that of Harvard University. Both the first and second-year classes have been divided into three sections each, in order that classes might not be too large for efficient instruction. One section of each class is held from 9 to 11 in the morning and two sections from 5.10 to 6.50 in the afternoon.

LAW SCHOOL ORGANIZATIONS

The Law School Senate, which was first organized last year has proved to be a helpful influence in student affairs. Among other things handled by it during the year have been the financing and carrying out of the Annual Dinner, the passing of resolutions condemning the use of prepared notes, and the organization of the classes and Honor Committees. The members are: Ismar Baruch, '21, Chairman; Sarah A. Tilghman, '22, Vice-President; Glenn Eno, '21, Secretary and Treasurer; Dean Merton L. Ferson, ex-officio; Gilbert L. Hall, '18, representing the Alumni; Newell W. Ellison '21, George E. Hughes, '22, Leslie Jackson '22, Paul H. Baker '23, Bernard F. Burdick, '23, and Filimora Wilgus, '23.

Each class has organized its Honor Committee, but so far the committees have had no occasion to meet. It is believed that the honor system used in examinations is working well in the Law School.

Two new legal fraternities have been installed during the past year. Phi Alpha Delta granted a charter to the men in the Harlan Law Club last June, and Kappa Beta Pi granted a charter last August to a group of seven women students. There are now four national legal fraternities with Chapters in the Law School, the other two being Phi Delta Phi, installed in 1884, and Phi Delta Delta Women's Legal Fraternity, installed in 1918.

There is also a chapter of Delta Sigma Rho, the Honor Society of men and women who have participated in collegiate contests in debate and oratory.

The Columbian Debating Society has enjoyed an unusually successful year. Its Friday evening meetings have been well attended and its membership increased. George Washington teams, composed largely of students from the Columbian

Debating Society, defeated the University of West Virginia and the Swarthmore College teams in the annual triangular inter-collegiate debating contest. A dual debate between women teams of George Washington and West Virginia Universities has been arranged.

The Women's Legal Club has held several very successful social affairs and has done much to draw the women students closer together.

CHANGES IN LAW FACULTY AND CURRICULUM

Four new professors who are devoting their entire time to teaching were added to the Law School faculty last fall. They are: Lyman P. Wilson, B.S., Knox College, J.D., University of Chicago; Hector G. Spaulding, A.B., Dartmouth, LL.B., Harvard; Albert Levitt, A.B., Columbia, LL.B., Harvard; and Thomas C. Lavery, LL.B., George Washington.

Professor Wilson has had long experience as a teacher of law at both the Universities of Idaho and Oklahoma. Professor Spaulding formerly taught at Stanford University.

Four new Lecturers in Law were also secured. Harleigh H. Hartman, M.A., LL.M., D.C.L., Examiner at the Interstate Commerce Commission, is giving the course in Public Utilities. Frank S. Smith, A.B., Wesleyan University LL.M., George Washington, is teaching Wills and Real Property III. Spencer Gordon, A.B., Princeton, LL.B., George Washington, is giving the course in Income Tax Law. Gilbert L. Hall, A.B., Swarthmore, LL.B., George Washington, is conducting one of the four Moot Courts. Messrs. Smith, Gordon and Hall are all attorneys practicing in the City of Washington.

The teaching staff this year consists of six full-time professors and fifteen part-time professors and lecturers.

Prof. Van Vleck was granted leave of absence for the year. However, he will return to the school and will give two courses during the summer session. Prof. McFall is devoting only part of his time to teaching.

John W. Townsend, LL.B., George Washington, has succeeded Prof. Van Vleck as Secretary of the Law School. He is giving his full time to the work, as the growth of the school and the corresponding increase in administrative work demands a full-time secretary.

A new division of the Moot Court has been established, and several new subjects added to the curriculum. Admiralty, Public Utilities, Income Tax Law, International Law, Mortgages, Real Property III, and Damages are being given. These subjects have been added since the publication of the 1919-20 catalog. The new Law Building makes it possible not only to take care of a larger enrollment, but also makes it feasible to offer a larger number of courses of instruction, as the number of class rooms is now double that of the old quarters.

LAW FACULTY NOTES

Prof. William C. Van Vleck was granted leave of absence for 1920-21, and is taking post-graduate work at Harvard Law School.

Prof. Merrill I. Schnebly, who resigned last June, is now teaching at Indiana University Law School.

Mr. Chester McClain, who taught Trusts last year, is now an instructor in the Harvard Law School.

Prof. John M. McFall, who was a full-time instructor last year, is now Assistant Counsel in the Legal Department of the United States Fidelity and Guaranty Company in Baltimore. However, he comes to Washington each Saturday, and is giving the courses in Mortgages and Insurance.

Dean Ferson, Professors Van Vleck, Collier, Levitt and Spaulding attended the meeting of the Association of American Law Schools, held at Chicago in December.

LAW SCHOOL

Summer Session, 1921

The summer session of the Law School for 1921 will cover a period of six weeks. Classes will begin Monday, June 20th, and close Saturday, July 30th. Examinations will be held August 1st, 2nd and 3rd.

The purpose of this session is to lighten and supplement the work of the regular session by enabling students to complete subjects usually taken in the regular session, or to shorten the period of study for a degree.

Subjects have been selected to afford proper work both for students beginning the study of law and for advanced students. All the subjects selected will be conducted by regular members

of the faculty and the character of instruction and the amount and grade of work required will be the same as that of the regular session.

Students who are qualified for admission as candidates for degrees will be given two semester-hours credit for each topic completed.

Employed students may obtain a maximum of four semester hours credit by attendance in two subjects aggregating ten periods per week.

Students without substantial outside employment may obtain a maximum of six semester hours credit by attendance in three subjects aggregating fifteen periods per week.

The schedule is so arranged that the work may be taken in the morning or in the late afternoon, or part in the morning and part in the late afternoon.

Classes in morning subjects are held from Tuesday to Saturday, inclusive; classes in afternoon subjects from Monday to Friday, inclusive. Monday, July 4th, will be a holiday.

The following courses will be offered: Elementary Procedure, Assistant Prof. Lavery; Personal Property, Prof. Van Vleck; Principles of Legal Liability, Prof. Collier; Code Pleading, Prof. Wilson; Damages, Assistant Prof. Lavery; Quasi-Contracts, Prof. Van Vleck; Sales, Prof. Ferson; Suretyship, Prof. Wilson. The first three subjects are open to first-year students, and the rest to second and third-year students.

SECOND SUMMER SESSION.

A second summer session will commence on August 4, immediately following the first, and will end on September 14. Examinations will be held September 15, 16, and 17. The terms of admission, fees, credit and hours of recitation are the same as in the first session. Eight courses in regular law work, the subjects to be announced at a later date, will be offered.

This is the first time two summer sessions have been offered at George Washington. The additional term has been decided upon on account of the unusual demand by students in this and other law schools near Washington for a session during the latter part of the summer. It affords an opportunity for summer work to those students who plan to take their vacations in the early part of the summer, and also a chance for students taking work in the summer schools of other universities to make additional credit by devoting the larger portion of the usual vacation time to study.

GEORGE WASHINGTON UNIVERSITY.

Students registered in the University during the Fall and Winter of 1920-21.

Department of Arts and Sciences.

School of Graduate Studies	227	
Columbian College	1,967	
College of Engineering	539	
Teachers College	306	
		3,039

Professional Departments.

Law School	897	
Medical School	113	
Pharmacy School	14	
		1,024
Total		4,063

SUMMER SCHOOL, 1920.

Arts and Sciences	763	
Law	270	
		1,033
Total including Summer School		5,096

SUMMARY FOR TEN YEARS.

		<i>Summer School</i>	<i>Total</i>
Rear-Admiral Chas. H. Stockton, President:			
Registration for 1911-12	1,270		
Registration for 1912-13	1,347		
Registration for 1913-14	1,611		
Registration for 1914-15	1,790		
Registration for 1915-16	1,973		
Registration for 1916-17	2,187	231	2,418
Registration for 1917-18	2,217	275	2,492
William Miller Collier, President:			
Registration for 1918-19	2,629	387	3,016
Registration for 1919-20	3,822	668	4,490
Registration for 1920-21	4,063	1,033	5,096

A PRAYER
BY
GEORGE WASHINGTON*

Almighty God: We make our earnest prayer that Thou wilt keep the United States in Thy holy protection; that Thou wilt incline the hearts of the citizens to cultivate a spirit of subordination and obedience to government, and entertain a brotherly affection and love for one another and for their fellow-citizens of the United States at large. And, finally, that Thou wilt most graciously be pleased to dispose us all to do justice, to love mercy and to demean ourselves with that charity, humility and pacific temper of mind which were the characteristics of the Divine Author of our blessed religion, without a humble imitation of whose example in these things we can never hope to be a happy nation. Grant our supplication, we beseech Thee, through Jesus Christ, our Lord. Amen.

* This prayer is used regularly at "The President's Chapel" of the George Washington University, and voices the aspirations of the University for the fulfillment of civic duties and the promotion of national welfare.

George Washington University
Washington, D. C.



SUMMER SCHOOL

Six-week and nine-week courses
Beginning June 20, 1921

SUBJECTS OF INSTRUCTION

Art	Household Economics
Chemistry	Law
Economics	Library Science
Education	Mathematics
English	Philosophy
French	Physics
Geography	Political Science
Geology	Psychology
German	Sociology
History	Spanish

The Summer School Bulletin, giving full information, will be sent upon request

ADDRESS COMMUNICATIONS TO

DIRECTOR SUMMER SCHOOL

2023 G STREET NORTHWEST

WASHINGTON, D. C.

For announcement of Summer Law School
see pages 92 and 93

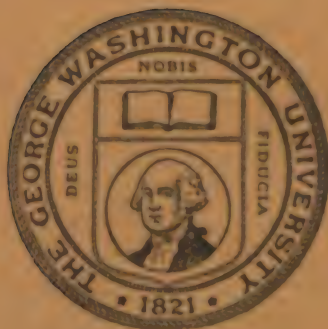
The Regular Annual Courses of the University for the next academic year will begin on the last Wednesday of September—September 28th.

Secretary's Desk Copy
VOLUME XX
NUMBER 2

George Washington University Bulletin

CATALOGUE NUMBER

JUNE, 1921



PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C.,
MARCH, JUNE, OCTOBER AND DECEMBER

Entered October 6th, 1904, at Washington, D. C., as second-class
matter under Act of Congress of July 16, 1894

HAYWORTH PUBLISHING HOUSE
WASHINGTON, D. C.

George Washington University
Bulletin

CATALOGUE NUMBER

JUNE, 1921

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1921							1922													
JULY							JANUARY							JULY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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3	4	5	6	7	8	9	8	9	10	11	12	13	14	2	3	4	5	6	7	8
10	11	12	13	14	15	16	15	16	17	18	19	20	21	9	10	11	12	13	14	15
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..

UNIVERSITY CALENDAR

1921-1923

January	31	Monday	Second half-year begins.
February	29	Sunday	Winter Convocation Sermon.
February	21	Monday	Centennial Day. A holiday in all departments of the University.
February	22	Tuesday	Centennial Convocation. A holiday in all departments of the University.
March	4	Friday	Inauguration Day. A holiday in all departments of the University.
March	25-28	Friday to Monday	both inclusive—Easter Holidays.
April	10	Tuesday	Davis Prize Speaking.
April	25	Monday	Last day on which theses of candidates for the Doctorate degree at the Commencement may be presented.
May	29	Monday	Last day on which theses of candidates for the Engineering and Master's degrees at the Commencement may be presented.
May	25	Wednesday	Final examinations, Department of Arts and Sciences, begin.
May	31	Tuesday	Doctorate Disputation.
June	1	Wednesday	Annual meeting of the Board of Trustees.
June	5	Sunday	Baccalaureate Sermon.
June	8	Wednesday	Commencement.
June	16-25	Registration for the Summer School.	
June	20	Monday	Instruction begins in the three-credit courses coming at seven forty-five A. M., and in all afternoon classes in the Department of Arts and Sciences and in all classes in the summer session of the Law School.
June	27	Monday	Instruction begins in the two-credit courses coming in the forenoon in the Department of Arts and Sciences.
September	28	Wednesday	Academic year begins in all departments of the University.
October	11	Tuesday	Last day on which theses of candidates for the Engineering and Master's degrees at the Fall Convocation may be presented.
October	12	Wednesday	Stated meeting of the Board of Trustees.
October	27	Thursday	Fall Convocation.
Nov.	24-26	Thursday to Saturday	both inclusive—Thanksgiving Recess.

RECESS FROM DECEMBER 24, 1921, TO JANUARY 2, 1922, BOTH INCLUSIVE

January	1	Friday	Last day on which theses of candidates for the Doctorate degree at the Winter Convocation may be presented.
January	11	Wednesday	Stated meeting of the Board of Trustees.

UNIVERSITY CALENDAR—Continued

1923		
1922		
January	28	Monday—Mid-year examinations, Department of Arts and Sciences, begin.
January	30	Monday—Last day on which theses of candidates for the Engineering and Master's degrees at the Winter Convocation may be presented.
1922		
January	30	Monday—Second half-year begins.
February	14	Tuesday—Doctorate Disputation.
February	19	Sunday—Winter Convocation Sermon.
February	22	Wednesday—Winter Convocation. A holiday in all departments of the University.
April	14-17	Friday to Monday, both inclusive—Easter Holidays.
April	24	Monday—Last day on which theses of candidates for the Doctorate degree at Commencement may be presented.
April	25	Tuesday—Davis Prize Speaking.
May	22	Monday—Last day on which theses of candidates for the Engineering and Master's degrees may be presented.
May	24	Wednesday—Final examinations, Department of Arts and Sciences, begin.
May	29	Monday—Doctorate Disputation.
May	30	Tuesday— <i>Decoration Day</i> —A holiday in all Departments of the University.
May	31	Wednesday—Annual meeting of the Board of Trustees.
June	4	Sunday—Baccalaureate Sermon.
June	7	Wednesday—Commencement.
June	15-24	Registration for the Summer School.
June	19	Monday—Summer School begins.

Howard Lincoln Hodgkins
Ph.D. Jr.D.

THE BOARD OF TRUSTEES

~~WILLIAM MILLER COLLIER, L.H.D., D.C.L., LL.D.~~
President of the University

1922

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HARRY WARDMAN, 1430 K Street.

1923

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HENRY BROWN FLOYD MACPHERLAND, 1420 New York Avenue.
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ARCHIBALD HOPKINS

* Nominated by the Alumni.

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1713 M Street

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The Secretary of the University, Secretary *ex officio*.

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Elmer Louis Kayser, A. M., Secretary
Charles Wendell Holmes, Treasurer

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Anna Lorette Rose, A. B., Registrar *Acting Dean of Homer*

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Howard Lincoln Hodgkins, Ph. D., Sc. D., Dean

Teachers College

William Carl Ruediger, Ph. D., Dean

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College of Pharmacy

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John William Townsend, LL. B., Secretary

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Alfred Francis William Schmidt, A. M., Librarian

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Elmer Schatz, Superintendent

Student Activities
Byron Morse, B.S., Director

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President of the University

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Anna Loreth Rose, A. B., Acting Dean of Women
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Catalogue and Other Publications—The President, the Secretary,

Professors HODGKINS, WILBUR and RUEDIGER.

Admissions—Professors HODGKINS, RUEDIGER and WILBUR.

Commencement Exercises—The President, the Secretary, and the
Treasurer, Professors SWETT, HORNADAY, ~~DOYLE~~, McNEIL and
BOLWELL.

Schedule—Professors HENNING, HODGKINS and RUEDIGER.

Library—Professors SCHOENFELD, HENNING, the Librarian

Summer School—Professors RUEDIGER, HODGKINS, HUNTER, and
VAN VLECK.

Board of Managers of Student Activities—Mr. BRYAN MORSE
(Chairman), Dr. DANIEL L. BORDEN, Mr. THOMAS L. BRADLEY,
Mr. C. C. GLOVER, Jr., Professor H. G. DOYLE, Professor
CHARLES S. COLLIER, Mr. JOHN PAUL EARNEST, Jr., and Mr.
EUGENE UNDERWOOD, Jr.

*H. H. Shinnick*⁹

HISTORY AND PRESENT ORGANIZATION

HISTORY

The George Washington University is the successor of the Columbian College in the District of Columbia which was chartered by an act of Congress approved February 9, 1821. In 1873 the name was changed to Columbian University and in 1904 to The George Washington University.

The first commencement of Columbian College was held on the 15th of December, 1824, with the President of the United States; the Honorable John Quincy Adams, Secretary of State; the Honorable John C. Calhoun, Secretary of War; the Honorable Henry Clay, Speaker of the House of Representatives; and General Lafayette among those present.

Work in the College was confined to the Arts and Sciences until March, 1825, when the Medical Department was established under the conduct of Dr. Thomas Sewall. The Medical Department is thus in the chronological order of establishment the seventeenth medical school in the United States. In 1826 the Law Department was founded with the Honorable William T. Carroll and Mr. Justice Cranch as its professors. Shortly afterward the school was discontinued, but was reopened in 1865. A Theological School founded also in 1826 was soon moved to Newton, Mass., where it now flourishes. On October 1, 1884, the Corcoran Scientific School, now the College of Engineering, was founded. Under Dean Charles E. Munroe the School of Graduate Studies was organized in 1893. Teachers College was started as The Division of Education in 1907. In 1919, the National College of Pharmacy, organized in 1905 as an affiliated college of the University and suspending during the last year of the war, was reopened as the School of Pharmacy, a division of the Department of Medicine, Dentistry and Pharmacy.

EDUCATIONAL ORGANIZATION

Department of Arts and Sciences:

- School of Graduate Studies
- Columbian College
- College of Engineering
- Teachers College
- Summer School

Department of Medicine and Pharmacy:

- The Medical School
- The School of Pharmacy

Department of Law

ANNUAL COMMENCEMENT

The Annual Commencement is held thirty-six weeks after the last Wednesday in September. Students who have satisfied the requirements for degrees subsequent to the June Commencement may be awarded degrees at the Fall Convocation on October 27.

The Winter Convocation is held on February 22.

UNIVERSITY ASSEMBLIES

The University Assemblies will be held from time to time, the attendance of students upon which may be required.

THE UNIVERSITY LIBRARY

The University Library comprises the Library of the Department of Arts and Sciences, the Law Library, and the Medical Library. It contains 55,000 volumes.

In addition to its general collections the Library of the Department of Arts and Sciences contains the Library of the late Professor Richard Heinzel, of the University of Vienna, containing 7,200 books and pamphlets in Germanic philology and literature, and cognate branches; the library of the late Professor Curt Wachsmuth, of the University of Leipzig, containing 7,900 books and pamphlets in Greek and Roman literature, archaeology, and history; the Mount Vernon Alcove containing 4,000 volumes in political history, international law, and the social sciences. Besides, the library of the American Institute of Architects, consisting of 1,063 volumes and portfolios of plates and drawings, is deposited in the reading room as a loan collection, where it is accessible, also, to all local architects. The library is open from 9 a. m., to 10.30 p. m.

The Law Library, containing 7,500 volumes, is open from 8.30 a. m. to 10 p. m.

The Medical Library, containing about 3,000 volumes, is open from 9 a. m. to 9 p. m.

PRIVILEGES IN GOVERNMENTAL INSTITUTIONS OPEN TO UNIVERSITY STUDENTS

In order to promote research and the diffusion of knowledge, the Congress of the United States has made the scientific resources of the Government accessible to students under the terms of the following joint resolution, approved April 12, 1892:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge

shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory.

STUDENT ACTIVITIES

Student Activities are supported by a voluntary Student Activities Fee, subscribed to by members of the University and collectible as a regular University fee by the Treasurer. Control and direction of all student activities are vested in a Board of Managers of Student Activities, which in turn is subject to the supervision and control of the President's Council. The Board of Managers consists of eight members, namely, the Director of Student Activities, who is the Chairman of the Board, three members of the Faculty, two Alumni, and two Students. The duties of the board are as follows:

- (a) To control and direct Student Activities.
- (b) To determine the amount of the Voluntary Student Fee.
- (c) To appropriate funds from the Student Activities Treasury.
- (d) To have final decision as to the selection of coaches or instructors for all student activities.

The Student Activities Fee was fixed by the Board at ten dollars for the academic year 1920-21.

Delta Tau Delta Activity Award—The Gamma Eta Chapter of the Delta Tau Delta Fraternity awards each year to "that student of the University who, during the preceding two years, has performed the most meritorious service in the furtherance and up-building of student activities" a gold medal. This award is made by the Board of Managers exclusive of the student members.

DEPARTMENT OF ARTS AND SCIENCES

FACULTY

~~WILLIAM MUMFORD CORRIE, L. H. D., D. C. L., LL. D.,~~

President of the University

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Professor Emeritus of Mathematics

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*Dean of the Department of Arts and Sciences and of the
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MITCHELL CARROLL, Ph. D.,

Professor of Archaeology and the History of Art

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SHEPHERD IVORY FRANZ, Ph. D., LL. D., M. D.,

Professor of Experimental Psychology

CHARLES SIDNEY SMITH, Ph. D.,

Professor of Greek and Latin

WILLIAM CARL RUEDIGER, Ph. D.,

*Dean of Teachers College, and Professor of Educational
Psychology.*

ALFRED FRANCIS WILLIAM SCHMIDT, A. M.,

Professor of German

WILLIS LUTHER MOORE, Sc. D., LL. D.,

Professor of Applied Meteorology

WILLIAM JACKSON HUMPHREYS, C. E., Ph., D.,

Professor of Meteorological Physics

EDWARD ELLIOTT RICHARDSON, M. D., Ph. D.,

Professor of Philosophy

GEORGE WASHINGTON LITTLEHALES, C. E.,

Professor of Nautical Science

RAY SMITH BASSLER, Ph. D.,

Professor of Geology

ROBERT RUSS KERN, A. B.,

Professor of Economics and Sociology

ALBERT LEWIS HARRIS, B. S. in Arch. *Professor of Architecture*
 DE WITT CLINTON CROISSANT, Ph. D. *Professor of English*
 JOAQUIN DE SIQUEIRA COUTINHO, Kt., Sc. D.,

Professor of Portuguese Language and Literature

LOUIS COHEN, Ph. D. *Professor of Radio-Electricity*

ISRAEL SCHAPIRO, Ph. D.,

Professor of Semitic Languages and Literature

TRUMAN MICHELSON, Ph. D. *Professor of Ethnology*

CHARLES EDWARD HILL, Ph. D. *Professor of Political Science*

JOHN THOMAS ERWIN, A. M. *Professor of Mathematics*

HIRAM COLVER MCNEIL, Ph. D. *Professor of Chemistry*

OTIS DOW SWETT, S. M., LL. M. *Professor of Chemistry*

JOHN RAYMOND LAPHAM, M. S. in C. E.,

Professor of Civil Engineering

EUGENE R. WHITMORE, M. D. *Professor of Preventive Medicine*

OWEN B. FRENCH, C. E. *Professor of Surveying*

THOMAS BENJAMIN BROWN, Ph. D. *Professor of Physics*

HENRY GRATTAN DOYLE, A. M. *Professor of Romance Languages*

FRANK A. HITCHCOCK, B. S. in C. E. *Professor of Civil Engineering*

ROBERT F. GRIGGS, Ph. D. *Professor of Botany*

WILLIAM PARTRIDGE *Professor of Architecture*

NEIL MONROE HOPKINS, Ph. D. *Assistant Professor of Chemistry*

EDWIN ALLSTON HILL, Ph. D. *Assistant Professor of Chemistry*

LESLIE RUSSELL ALLEN, A. M., LL. B. *Assistant Professor of History*

BEDFORD BROWN, S. B. *Assistant Professor of Architecture*

GEORGE MORTON CHURCHILL, Ph. D. *Assistant Professor of History*

CLARENCE CAMERON KOCHENDERFER, A. M.,

Assistant Professor of Commerce

LEONARD D. NORSWORTHY, C. E., A. M.,

Acting Assistant Professor of Civil Engineering

LOUIS EUGENE MCARTHUR, A. M. *Assistant Professor of History*

HARRY GRANT HODGKINS, A. B. *Assistant Professor of Mathematics*

ELMER LOUIS KAYSER, A. M.,

Secretary of the University and Assistant Professor of History

ROBERT WHITNEY BOLWELL, Ph. D. *Assistant Professor of English*

JOHN METCALE, Ph. D. *Assistant Professor of Psychology*

WILLIAM L. CHENEY, A. M. *Assistant Professor of Physics*

JAMES H. PLATT, B. M. E.,

Assistant Professor of Mechanical Engineering

CHARLES ELMER RESSER, Ph. D. *Assistant Professor of Geology*

CELOS HAMILTON SMITH, M. S. *Assistant Professor of Architecture*

CHARLES HERBERT STOCKTON, LL. D. *Lecturer on International Law*

FREDERICK EUGENE FOWLE, JR., S. B. *Lecturer on Astro-Physics*

WILLARD STANTON SMALL, Ph. D. *Lecturer on Education*

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JULIA THECKLA MACMILLAN, S. M. *Instructor in Zoology*

CHARLES EDWIN VAN OSTRAND, S. M.,

Lecturer on Mathematical Physics

MARIETTA STOCKARD ALBION, A. B.,

Lecturer on the Teaching of Children's Literature

✓ EDWARD CULLOM, A. M. *Instructor in French*

EDGAR LEE HEWETT, D. Soc. *Lecturer on Archaeology*

RALPH E. MYERS, A. M., M. D. *Instructor in Bio-Chemistry*

✓ CECIL KNIGHT JONES, B. Litt. *Instructor in Spanish*

✓ WALDO LASALLE SCHMITT, S. B., A. M. *Instructor in Zoology*

GERTRUDE RICHARDSON BRIGHAM, Ph. D.,

Instructor in Archaeology and History of Art

EARL GORDON MARSH, C. E. *Instructor in Civil Engineering*

✓ FRANK MCGINLEY PHILLIPS, Ph. D. *Instructor in Statistics*

✓ DANIEL A. CHACE, A. B. *Instructor in Journalism*

✓ F. KRAMER, A. M. *Instructor in French*

✓ JOSEPH HENRY WILSON, B. S. in M. E.,

Instructor in Mechanical Drawing

✓ FRANK C. DANIEL, A. B. *Instructor in Mathematics*

✓ GUS KILTON PATISON, A. B. *Instructor in Romance Languages*

✓ MERLE I. PROTZMAN, A. B. *Instructor in Romance Languages*

BENJAMIN C. CRUIKSHANKS, B. S. in M. E.,

Instructor in Mechanical Engineering

✓ NORMAN B. AMES, B. S. in E. E.,

Assistant Professor *Instructor in Electrical Engineering*

✓ GREGORY HANKIN, A. M. *Instructor in Mathematics*

✓ HERBERT A. EHRMAN, B. S. in M. E.,

Instructor in Mechanical Drawing

JEANNE MARET, A. B. *Instructor in French*

✓ ANGEL C. VASQUEZ *Instructor in Spanish*

ARTHUR J. FECHT, B. S. in E. E.,

Instructor in Electrical Engineering

✓ AIDA MARY DOYLE, M. S. *Instructor in Chemistry*

✓ MARGARET B. EVANS, B. S. *Instructor in Domestic Science*

B. H. LAMORE *Instructor in Italian*

✓ GEORGE W. PHILLIPS, B. S. in Chem. *Instructor in Chemistry*

✓ HENRY ALBERT LEPPER, B. S. in Chem. *Instructor in Chemistry*

✓ BONIFANT HAMILTON, B. S. in Chem. *Instructor in Chemistry*

✓ J. NORMAN TAYLOR, B. S. in Chem. *Instructor in Chemistry*

✓ PETER VALEAR, M. S. *Instructor in Chemistry*

THOMAS ELMER LANDVOIGT, M. E. *Instructor in Architecture*

MEYER WEINSTEIN, B. S. in Chem. *Assistant in Chemistry*

BEVERLY L. CLARKE *Student Assistant in Chemistry*

DELMOUR J. FUQUA *Student Assistant in Chemistry*

NORRIS H. SANBORN *Student Assistant in Chemistry*

Andre Beneteau - *Instructor in French*

Richard C. G. " *in Physics*

Flaming, W. H. L. " *in Architecture*

GORDON C. TIBBETS	<i>Student Assistant in Chemistry</i>
JOHN RUSSELL MASON	<i>Assistant in the Library</i>
HARRY WRIGHT NEWMAN	<i>Assistant in the Library</i>
HELEN MAY LOOMIS	<i>Assistant in the Library</i>
MARY GEORGE	<i>Assistant in the Library</i>
M. MARY LESTER	<i>Assistant in the Library</i>
CORA JOY MENAUGH	<i>Assistant in the Library</i>
ELIZABETH S. FROST	<i>Assistant in the Library</i>
ROSE VICKERS	<i>Assistant in the Library</i>
KATHERINE G. SYMMONDS	<i>Student Assistant in Zoology</i>
WILMER T. BARTHOLOMEW	<i>Student Assistant in History</i>
HENRY TEMIN	<i>Student Assistant in History</i>
ROBERT N. ANDERSON	<i>Student Assistant in History</i>
BENJAMIN H. SMITH, A. B.	<i>Student Assistant in Commerce</i>
HERBERT B. NICHOLS	<i>Student Assistant in English</i>
VIRGIL B. WILEY	<i>Student Assistant in English</i>
MILDRED J. MOORE	<i>Student Assistant in English</i>
ROBERT BOSWORTH	<i>Student Assistant in English</i>
HELEN MANKEY	<i>Student Assistant in English</i>
MIRIAM SELAH	<i>Student Assistant in English</i>
LEE ELLA WARREN	<i>Student Assistant in English</i>
BENJAMIN M. MCKELWAY	<i>Student Assistant in English</i>
MILDRED BENNETTS	<i>Student Assistant in English</i>
KATHERINE CHAPMAN	<i>Student Assistant in English</i>
EUNICE K. CRABTREE	<i>Student Assistant in English</i>
ALICE V. FOWLER	<i>Student Assistant in English</i>
FRANCIS E. JOHNSTON	<i>Student Assistant in English</i>
EVELYN W. JONES	<i>Student Assistant in English</i>
FRANK H. MARKS	<i>Student Assistant in English</i>
DOROTHY V. NICHOLS	<i>Student Assistant in English</i>
GRACE V. WRIGHT	<i>Student Assistant in English</i>
ROSEMARY ARNOLD	<i>Student Assistant in English</i>
MAY ADELE MARKLEY	<i>Student Assistant in English</i>
FREDERICH OLSEN, A. M.	<i>Assistant in Chemistry</i>
FRANK D. MOORE, A. M.	<i>Assistant in Chemistry</i>
REUBEN SCHMIDT, B. S. in Chem	<i>Assistant in Chemistry</i>
GEORGE HOLTON COREY	<i>Student Assistant in Chemistry</i>
MARSHALL J. GOSS	<i>Student Assistant in Chemistry</i>
ELLIS HAWORTH	<i>Student Assistant in Chemistry</i>
JOHN H. METZEROTT	<i>Student Assistant in Chemistry</i>
WILLIAM HENRY TONKIN	<i>Student Assistant in Chemistry</i>
WINSTON R. HAYNES	<i>Student Assistant in Chemistry</i>
JOSE A. LLOMPART	<i>Student Assistant in Chemistry</i>
GEORGE C. WIARD	<i>Student Assistant in Chemistry</i>
PAUL EANET	<i>Student Assistant in Chemistry</i>

WALTER F. AMAN	<i>Student Assistant in Physics</i>
GEORGE S. HASTINGS	<i>Student Assistant in Physics</i>
DANIEL B. LLOYD, JR.	<i>Student Assistant in Physics</i>
MILDRED E. FISH	<i>Student Assistant in Physics</i>
HARRY W. NEWMAN	<i>Student Assistant in Political Science</i>
HARRY N. WEIGANDT	<i>Student Assistant in Political Science</i>
HARRY FRIEDENBERG	<i>Student Assistant in Economics</i>
KATHRYN HARRIS	<i>Student Assistant in Architecture</i>
JENNIE LOWELL, A. M.	<i>Assistant in Education</i>

FACULTY OF THE SCHOOL OF GRADUATE STUDIES

President Collier, Dean Henning, Professors Hodgkins, Schoenfeld, Clarke, Wilbur, Swisher, Carroll, Bartsch, Franz, Smith, Ruediger, Schmidt, Moore, Humphreys, Richardson, Littlehales, Bassler, Kern, Croissant, Schapiro, Michelson, C. E. Hill, Cohen, Erwin, McNeill, Swett, Lapham, Whitmore, Brown, Doyle, Hitchcock, Griggs. Assistant Professors E. A. Hill, Alden, Churchill, Kochenderfer, Kayser, Bolwell, Metcalf, Platt; Messrs. Small, Van Orstrand, Ames, Hankin, Miss Brigham.

FACULTY OF COLUMBIAN COLLEGE

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FACULTY OF COLLEGE OF ENGINEERING

President Collier, Dean Hodgkins, Professors Schoenfeld, Wilbur, Henning, Bibb, Ruediger, Schmidt, Littlehales, Bassler, Kern, Harris, McNeill, Erwin, Swett, Lapham, Brown, Doyle, French, Hitchcock; Assistant Professors Alden, Norsworthy, H. G. Hodgkins, Platt, Resser, Cheney; Messrs. Cullom, Patison, Protzman, Cruikshanks, Ames, Hankin.

FACULTY OF TEACHERS COLLEGE

President Collier, Dean Ruediger, Professors Hodgkins, Schoenfeld, Wilbur, Swisher, Bartsch, Henning, Smith, Schmidt, Richardson, Bibb, Bassler, Kern, Croissant, C. E. Hill, McNeill, Erwin, Swett, Brown, Doyle, Griggs; Assistant Professors Alden, Kochenderfer, McArthur, Kayser, Bolwell, Metcalf, Cheney; Messrs. Small, Patison, Protzman; Mrs. Albion, Miss Evans.

SCHOOL OF GRADUATE STUDIES

HIGHER DEGREES

The higher degrees conferred in course by the University in this Division of the Department of Arts and Sciences are Master of Arts (A. M.), Master of Science (S. M.), Civil Engineer (C. E.), Electrical Engineer (E. E.), Mechanical Engineer (M. E.), and Doctor of Philosophy (Ph. D.).

ADMISSION

Candidates for admission to courses for higher degrees must make application to the Dean of the School of Graduate Studies on application blanks, which may be obtained of him. Candidates must present certificates of the degrees they hold from the institutions conferring such degrees. Candidates requesting advanced standing must present detailed certificates of the work for which they ask credit.

DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

To be admitted to candidacy for the Master's degree a student must have completed a liberal undergraduate course of study such as is required by colleges of good standing antecedent to the baccalaureate degree. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. Moreover, the course of study pursued must have been such as to qualify the candidate for pursuing the subjects chosen for the Master's or other higher degree sought. In seeking admission the applicant must state whether he desires to obtain the Specialist degree or the Liberal Culture degree.

The Specialist degree is designed for students who propose to specialize in their work. Such candidates are required to complete one major and two minor subjects selected from properly correlated and approved University subjects amounting to twenty-four semester-hours, and to present a satisfactory thesis, which shall count for six semester-hours. One of the minor topics may be selected from the University subject which includes the major topic. The major topic shall cover not less than fifteen nor more than eighteen semester-hours, including the thesis, a minor topic, not less than six nor more than nine.

The Liberal Culture degree is designed for students who do not intend to specialize in their work. Such candidates are required to complete a course of study amounting to not less than thirty semester-hours of work distributed among three approved University subjects. The major topic shall cover not less than fifteen nor more than eighteen semester-hours, including the thesis; a

minor topic, not less than six nor more than nine. The candidate must also present a thesis in the field to which the major subject belongs, which shall count for six of the required thirty credits.

A candidate for a Master's degree must pass at least one full year in residence and study at this University, and no work done in satisfaction of the requirements for the Bachelor's degree shall be counted again for a higher degree. Under no circumstances may courses in the First Section, "Primarily for undergraduates," be counted toward any higher degree, though a graduate student may be allowed to take them without receiving academic credit.

Advanced work done elsewhere may be credited toward the Master's degree in this University, to the extent of not more than twelve semester-hours. No work, whether done here or at other institutions, will be credited toward the Master's degree unless the student attains at least grade "C" or its equivalent on such work.

Work for which the Master's degree has been awarded may be credited as one year of work toward the degree of Doctor of Philosophy, provided that it be in the same field of work.

Attention is called to "Regulations Regarding Theses," below.

HIGHER DEGREES IN ENGINEERING

To be admitted to candidacy for higher degrees in Engineering a student must have completed a liberal undergraduate course of study such as is required by colleges of good standing antecedent to the baccalaureate degree in Engineering, and of such a character as to fit him to pursue to advantage the study of advanced engineering topics. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. Moreover, the courses of study pursued for the Bachelor's degree must be approved by the Faculty as qualifying the candidate for pursuing the chosen line of study for the degree sought.

A candidate for a degree in Engineering shall pass at least one year of residence at this University. He shall satisfactorily complete approved courses aggregating not less than thirty semester-hours, of which a thesis shall count six.

Advanced work done elsewhere may be credited toward a degree in Engineering in this University, to the extent of not more than twelve semester-hours. No work, whether done here or at other institutions, will be credited toward the Master's degree unless the student attains at least grade "C" or its equivalent on such work.

DEGREE OF DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is conferred upon a student who has pursued specialized courses in university subjects for a

period of not less than three years, has engaged in research under university auspices, has submitted an acceptable thesis, and has met all the requirements prescribed. The degree is given for high attainments and proved ability to do research work in some special branch of knowledge, as determined by the various tests applied. No work, whether done here or at other institutions, will be credited toward the degree of Doctor of Philosophy unless the student attains at least grade "C" or its equivalent in such work.

Before the student can be admitted to candidacy for this degree he must give evidence that he has completed a liberal undergraduate course of academic study such as is required by colleges of good standing antecedent to the baccalaureate degree, and of such a character as to fit him to pursue to advantage researches in the field chosen for his graduate work. The Faculty of Graduate Studies reserves the right to decide in all cases whether the antecedent training fulfills the requirements. The applicant may be credited with graduate work done at other universities, provided such work is shown to be of grade similar to that required here, but at least one year, preferably the last, must be spent in residence at this University and the other requirements of the degree as prescribed must be fulfilled.

The candidate for the Doctor's degree shall offer three topics from the University subjects—one major and two collateral minor studies, one of which minors may be in the subject which includes the major topic. These must be pursued under the guidance of a committee consisting of the professors in charge of the University subjects in which the studies are pursued, with the professor in the major subject as chairman. This committee will determine his division of time, study, and research among the major and minor topics. Before the Doctor's degree is conferred, the candidate shall have pursued his major subject at least three years and each minor at least two years since he obtained his baccalaureate degree. The candidate shall pass satisfactory examinations upon the three subjects selected. He must satisfy the Professors of French and German, not more than one month after the opening of his final year, that he can read understandingly, in the original, French and German works pertaining to his special field. In order to graduate the candidate must possess a broad acquaintance with his major subject and he must present a thesis upon some topic approved by the professor in charge of his major subject, which shall be a contribution to knowledge and which shall be accompanied by an adequate bibliography.

CANDIDATE'S COMMITTEE

The professors and other university officers offering the topics in which a candidate must qualify for his degree and to whom he is assigned constitute the Committee that must pass upon his work. The officer directing the major topic is chairman.

EXAMINATIONS

Candidates must pass examinations upon all their topics. The examinations upon the minor topics may be taken at the close of the respective years in which these topics are completed, or later, at the direction of the examiner. The final examination on the major topic shall cover the candidate's entire university work, and shall be given when the professor of that subject is satisfied that the student has taken sufficient work to warrant such an examination being taken. If a candidate has satisfactorily passed his final examination, he may be permitted to complete his thesis away from the University.

DEFENSE OF THE THESIS

Before a candidate shall be recommended to the Board of Trustees for the degree of Doctor of Philosophy he must have successfully defended his thesis in public before a Board of Experts not officially connected with the University. Before the candidate shall be permitted to undertake the defense of his thesis, the thesis must have been favorably reported on and recommended for defense by the professor having supervision over the candidate's major topic, and by a co-referee appointed from the Faculty of Graduate Studies.

The subjects from which the candidate's selection may be made, as the Faculty may determine in each case, are as follows:

Applied Mathematics, Archaeology, Anatomy, Architecture, Astronomy, Astro-Physics, Bacteriology, Botany, Chemistry, Civil Engineering, Commerce, Economics, Education, Electrical Engineering, Ethnology, Embryology, English, Ethics, French, Geology and Mineralogy, Germanic Languages and Literature, Greek Language and Literature, Gynecology, Histology, Hydraulic Engineering, History, History of Art, International Law and Diplomacy, Latin Language and Literature, Law, Mathematics, Mechanical Engineering, Meteorology, Microscopy, Nautical Science, Paleontology, Pathology, Philosophy, Physics, Physiology, Pharmacology, Political Sciences, Preventive Medicine, Psychiatry, Psychology, Romance Languages and Literatures, Semitics, Sociology, Spanish, Zoology.

REGULATIONS REGARDING MASTERS' AND DOCTORS'
THESES

All theses for each degree sought must, in their final form, be presented to the Dean by the dates announced in the University Calendar. They must previously have been typewritten on official thesis paper, which may be obtained from the Treasurer of the University. The Dean will present theses to the Chairman of the Committees on the candidates; doctoral theses will further be submitted for examination to the co-referees appointed from the Faculty. Accepted theses, with their accompanying drawings, are the property of the University, and will be deposited in the University Library, but the authors of them are permitted to make copies. The candidate for the degree of Doctor of Philosophy is expected to print his thesis under the supervision of the professor in charge of his major subject, within one year after the degree is granted, and he is expected to present one hundred copies to the University, to be distributed among institutions of learning.

DOCTORATE DISPUTATIONS

The Thirty-Ninth Doctorate Disputation was held publicly on May 25, 1920. The theses that were successfully defended, the candidates, and the members of the boards of experts, were as follows:

Thesis: A thermophilic bacterium causing flat-sour spoilage in canned foods. By Peter John Donk, B. S. in Chem., 1917, George Washington University. Before Eugene R. Whitmore, B. S., M. D., Lt.-Col. U. S. Army (Retired); Henry J. Nichols, B. A., M. A., M. D., Maj. M. C., U. S. A., Assistant Professor of Pathology and Bacteriology, Army Medical School; Louis V. Dieter, Phar. D., Bacteriologist, Health Department. Oscar Benwood Hunter, M. D., Professor of Bacteriology and Pathology, presiding.

Thesis: A psychoanalytic study of some psychoses associated with frank endocrine disorders. By Dudley Ward Fay, A. B., 1907, Williams College. Before Frank F. Hutchins, Lieut.-Col., Med. Corps, U. S. Army; Loren Johnson, M. D.; Nolan D. C. Lewis, M. D., Professor of Experimental Pathology, presiding.

Thesis: The School Janitor. By John Absalom Garber, A. B., 1891, Bridgewater College, A. M., 1915, George Washington University. Before Frank F. Bunker, Ph. D., U. S. Bureau of Education; E. A. Peterson, A. M., M. D., Director, Health Service, American Red Cross; James H. Rule, M. S., Director, Junior Red Cross, American Red Cross. Willard Stanton Small, Ph. D., Lecturer on Education, presiding.

Thesis: Two conceptions of individuality; an examination into

the theories of Josiah Royce and Willam James. By Ewart William Hobbs, LL. M., 1910, National University Law School, A. B., 1916, A. M., 1917, George Washington University. Before James Macbride Sterrett, A. M., D. D., Litt. D., Professor Emeritus of Philosophy, George Washington University; J. S. Lemon, A. M., Ph. D.; J. Stanley Durkee, A. M., Ph. D., President, Howard University. Edward Elliott Richardson, M. D., Ph. D., Professor of Philosophy, presiding.

Thesis: Rainfall and run-off and the hydraulics of drainage ditches. By Alanson David Morehouse, M. E., 1893, Cornell University. Before Arthur P. Davis, B. S., D. Sc., Director, U. S. Reclamation Service; N. C. Grover, B. S., Chief Hydraulic Engineer, U. S. Geological Survey; John C. Hoyt, C. E., Hydraulic Engineer, in charge Surface Water Division, U. S. Geological Survey. John Raymond Lapham, M. S. in C. E., Professor of Civil Engineering, presiding.

Thesis: A revision of the genus *Datura*, with notes on the history and narcotic properties of the species. By William Edwin Safford, Graduate, 1880, U. S. Naval Academy. Before Frederick V. Coville, Chief Botanist, U. S. Department of Agriculture; Albert Spear Hitchcock, B. S. A., M. S., Systematic Agrostologist, U. S. Department of Agriculture; Sidney F. Blake, A. B., A. M., Ph. D., Assistant Botanist, Bureau of Plant Industry, U. S. Department of Agriculture. Paul Bartsch, Ph. D., Professor of Zoology, presiding.

Thesis: Health supervision in the public schools of the United States. By Elon Galusha Salisbury, B. S., 1911, Union College, A. M., 1917, George Washington University. Before Taliaferro Clark, Assistant Surgeon General, U. S. P. H. S., Medical Officer in Charge of Field Investigations in Child Hygiene; Joseph A. Murphy, M. D., Chief Medical and Sanitary Inspector of Schools, Health Department. William Carl Ruediger, Ph. D., Professor of Educational Psychology, presiding.

Thesis: Hemotoxins from parasitic worms. By Benjamin Schwartz, A. B., 1911, College of the City of New York; A. M., 1913, Columbia University. Before B. H. Ransom, B. Sc., A. M., Ph. D., Chief, Zoological Division, Department of Agriculture; Eugene R. Whitmore, B. S., M. D., Lieut.-Col., U. S. Army Medical Corps; Maurice C. Hall, B. S., M. A., Ph. D., D. V. M., Senior Zoologist, Department of Agriculture. Paul Bartsch, Ph. D., Professor of Zoology, presiding.

THE COLLEGES

The College session of 1921-22 begins Wednesday, September 28, 1921.

The Colleges are open to men and women.

ADMISSION

Every applicant for admission is required to present a certificate of standing and regular dismissal from the school or college which he has last attended.

Candidates for admission to the Freshman Class may present certificates of admission or take an examination in the required subjects. Certificates, in lieu of any or all examinations, will be accepted from schools whose work is attested by well-prepared students admitted to the University in previous years, and from schools that present evidence of affording adequate preparation in the required subjects. Deans of the Colleges will, on application, furnish certificate blanks to the principals of such accredited schools.

The certificates of the College Entrance Examination Board will be accepted.

The requirement for admission is a four-year high-school course, or its equivalent, amounting to fifteen "units." For prescribed studies see the specifications of each college.

A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work.

ENTRANCE EXAMINATIONS

The regular examinations for admission are held about June 1, and the schedule for the examinations is issued May 25.

Unless admitted by certificate, every undergraduate candidate for a degree is required to pass an examination.

Candidates from the Washington high schools for the Kendall and the University Scholarships will be examined on nine and one-half units. These units upon which the examination will be given are the following: the specified subjects—English (three units), Mathematics (two and one-half units), and one other language (two units); the remaining two units will be in language, history, mathematics, physics, chemistry, biology—as the candidate shall elect. The remainder of the fifteen units must be certified from the high schools.

Definition of Requirements

ENGLISH

(Three Units)

The requirement in English is that recommended by the National Conference on Uniform Entrance Requirements in English.

However accurate in subject matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling or other essentials of good usage.

The examination will be divided into two parts:

1. Grammar and Composition

In grammar and composition, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relations of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English, which one should know in distinction from current errors. The main test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will be drawn from the books read, from the candidate's other studies, and from his personal knowledge and experience quite apart from reading. For this purpose the examiner will provide several subjects, perhaps eight or ten, from which the candidate may make his own selections. He will not be expected to write more than four hundred words per hour.

2. Literature

The examination in literature will include:

A. Reading.—General questions designed to test such a knowledge and appreciation of literature as may be gained by an intelligent reading of at least two books under each of five groups as follows: Group I—Classics in Translation (a selection from any other group may be substituted for this), Group II—Shakespeare, Group III—Prose Fiction, Group IV—Essays, Biography, etc., Group V—Poetry. Other books than those named in the Uniform Entrance Requirement list will be accepted under each group, provided the books are of standard literary character. The candidate will be required to submit a list of the books read in preparation for the examination, certified by the principal of the school in which he was prepared; but the books named in this list will not be made the basis of detailed questions.

B. Study.—The books provided for study are arranged in four groups, from each of which one selection is to be made.

GROUP I, DRAMA

Shakespeare: Julius Caesar, Macbeth, or Hamlet.

GROUP II, POETRY

Milton: *L'Allegro*, *Il Penseroso*, and either *Comus* or *Lycidas*.
Tennyson: *The Coming of Arthur*, *The Holy Grail*, and *The Passing of Arthur*.

The selections from Wordsworth, Keats and Shelley in Book IV of Palgrave's *Golden Treasury* (First Series).

GROUP III, ORATORY

Burke: *Speech on Conciliation with America*.
Macaulay's *Two Speeches on Copyright*, and Lincoln's *Speech at Cooper Union*.
Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*.

GROUP IV, ESSAYS

Carlyle: *Essay on Burns*, with a selection from *Burns' Poems*.
Macaulay: *Life of Johnson*.
Emerson: *Essay on Manners*.

A test on the books prescribed under the *Study* groups will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

For the George Washington University Scholarship Entrance Examinations the books for *Reading* and *Study* will be the required English of the Washington High Schools.

LATIN

Elementary (two units)

a. I. Latin Grammar, The inflections; the simpler rules for composition and derivation of words; syntax of cases and the verb; structure of sentences in general, with particular regard to relative and conditional sentences, indirect discourse, and the subjunctive.

II. Latin Prose Composition: Translation into Latin of detached sentences and easy continuous prose based on Caesar.

b. Caesar: Any four books of the *Gallie War*, preferably the first four.

Advanced (two units)

a. Cicero: Any six orations from the following list, but preferably the first six mentioned. The four orations against Catiline.

Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the Fourteenth Philippic.

b. Virgil: The first six books of *Æneid*.

c. Advanced Prose Composition, consisting of continuous prose of moderate difficulty based on Cicero.

d. Sight Translation, based on prose of no greater difficulty than the easier portions of Cicero's orations.

GREEK

Elementary (two units)

a. I. Greek Grammar: The topics of the examination in Greek grammar are similar to those detailed under Latin grammar.

II. Greek Prose Composition, consisting principally of detached sentences to test the candidate's knowledge of grammatical constructions. The examination in grammar and prose composition will be based on the first two books of Xenophon's *Anabasis*.

b. Xenophon: The first four books of the *Anabasis*.

Advanced (one unit)

a. Homer: The first three books of the *Iliad* (omitting II, 494, to end).

b. Sight Translation, based on prose of no greater difficulty than Xenophon's *Anabasis*.

FRENCH

Elementary (two units)

Candidates in Elementary French must have a good knowledge of the essential parts of grammar, with stress on pronouns and on regular verbs and the common irregular verbs. They must know the principles of pronunciation; must be able to translate simple English sentences or easy connected prose into French, and to translate accurately ordinary modern French prose. Candidates must have translated not less than 450 duodecimo pages by at least four different authors, of which amount at least one-third must be history. Candidates must have had a two-year's course of five periods per week.

Advanced (two units)

Candidates in advanced French must have partly translated, partly read, in addition to the requirements for Elementary French, at least 1,000 pages of difficult French of several different authors, including history, fiction, drama, and poetry. Candidates must have had a four-years' course of five periods per week.

Fraser and Squair's French Grammar or Grandgent's Essentials of French Grammar is recommended.

SPANISH*(Two units)*

Candidates in Spanish must have a good knowledge of grammar, including syntax, with stress on pronouns and verbs, regular and irregular. They must know the principles of pronunciation. They must be able to translate simple English sentences or easy connected prose into Spanish, and to translate accurately fairly difficult modern Spanish prose and verse. Candidates must have translated not less than 500 pages by at least four different authors, of which amount at least one-fourth must be history or drama. Candidates must have had a two-years' course of five periods per week.

GERMAN*Elementary (two units)*

Candidates in Elementary German must have had a two-years' course or five periods a week. They must be able to read fluently at sight and to translate easy narrative prose and poetry. An accurate knowledge of the elements of German grammar and the ability to translate simple prose into German are requisite. About 300 pages of graduated narrative prose, one short play, and such poetry as is usually found in a First Reader will be considered an adequate preparation.

Advanced (two units)

Candidates in Advanced German must have had a four-years' course of five periods a week. They should be well trained in the syntactical laws of the language, have read about 800 pages of good literature in prose, preferably such prose works as are given in the Report of the Committee of Twelve of the Modern Language Association, and poetry, especially dramas by Lessing, Schiller, and Goethe, and studied an elementary history of German literature. German composition should comprise a number of short themes upon assigned historical or literary topics, lives of the authors read, etc.

HISTORY

In this subject special importance is attached to preparation in geography.

Ancient (one unit)

a. Greek History, through the Roman Conquest; as much as is contained in Myer's, Bottsford's, or West's History of Greece.

b. Roman History; as much as is contained in Allen's, Bottsford's, or West's History of the Roman People.

Mediaeval History (one unit)

As much as is contained in first twenty chapters of Robinson's Mediaeval and Modern Times.

Modern European History (one unit)

As much as is contained in Robinson's Mediaeval and Modern Times from chapter 21 to the end.

English History (one unit)

As much as is contained in Larned's or Cheyney's History of England.

American History with the Elements of Civil Government

(one unit)

As much as is contained in Fiske's History of the United States, and Fiske's Civil Government.

MATHEMATICS

Elementary and Intermediate Algebra (one and one-half units)

I. Algebra to Quadratics: The four fundamental operations for rational algebraic expressions, factoring, highest common factor, lowest common multiple, complex fractions, the solution of equations of the first degree containing one or more unknown quantities, radicals, including the extraction of the square root of polynomials and numbers, and fractional and negative exponents.

II. Quadratics, etc.: Quadratic equations and equations containing one or more unknown quantities that can be solved by the methods of quadratic equations, problems depending upon such equations, ratio and proportion, and the binomial theorem for positive integral exponents.

Advanced Algebra (one-half unit)

The progressions; the elementary treatment of permutations and combinations; the use of four and five place tables of logarithms; undetermined coefficients; the elementary treatment of infinite series, the binomial theorem for fractional and negative exponents; the elementary treatment of the theory of equations.

Plane Geometry (one unit)

General text propositions, including the solution of simple original exercises and numerical problems.

Solid Geometry (one-half unit)

Properties of straight lines and planes, of dihedral and polyhedral angles, of projections, of polyhedrons, including prisms, pyramids, and the regular solids; of cylinders, cones, and spheres; of spherical triangles and the measurement of surfaces and solids.

Plane Trigonometry (one-half unit)

The definitions and relations of the six trigonometrical functions as ratios, proof of important formulas, theory of logarithms and use of tables, solution of right and oblique plane triangles.

PHYSICS

(One unit)

It is recommended that the candidate's preparation should include:

- a. Individual laboratory work, comprising at least thirty-five exercises well distributed over the subjects of physics.
- b. Instruction by lecture-table demonstrations.
- c. The study of at least one standard text-book, supplemented by the use of many and varied numerical problems. The metric system should be familiar to the student.

The laboratory note-book must be submitted for inspection, whether the candidate is admitted on certificate or by examination.

CHEMISTRY

(One unit)

The candidate's preparation in chemistry should include:

- a. Individual laboratory work, comprising at least forty experiments of a character analogous to those set forth by the College Entrance Examination Board. The laboratory note-book must be submitted for inspection.
- b. Instruction by lecture-table demonstrations.
- c. The study of at least one modern text-book.

Requirements.—The ground to be covered should include the following: The chief physical and chemical characteristics, the isolation and the recognition of the following elements and the preparation and study of their principal compounds: *Oxygen, hydrogen, carbon, nitrogen, chlorine, bromine, iodine, fluorine, sulphur, phosphorus, silicon, potassium, sodium, calcium, magnesium, zinc, copper, mercury, silver, aluminum, lead, tin, iron, manganese, chromium.*

The more detailed study should be confined to the italicized elements (as such) and to a restricted list of compounds, such as water, hydrochloric acid, carbon monoxide, carbon dioxide, oxides of nitrogen, nitric acid, ammonia, sulphur dioxide, sulphuric acid, hydrogen sulphide, sodium hydroxide, ammonium hydroxide.

Attention should be given to the atmosphere (constitution and relation to animal and vegetable life), flame, acids, bases, salts, oxidation and reduction, crystallization, combining proportions by weight and volume, calculations founded on these and on Boyle's and Charles' laws, symbols, formulas, equations and nomenclature, atomic theory, atomic weights, nascent state, natural groups of the elements, solution (solvents and solubility of gases, liquids, and solids), strength of acids and bases, conservation and dissipa-

tion of energy, chemical energy and electrolysis, and of valence, electrolytic dissociation, osmosis, mass action in a very elementary way. Chemical terms should be clearly understood, and the student should be able to illustrate and apply the ideas that they embody. The theoretical topics are not intended to form separate subjects of study, but to be taught only so far as is necessary for the correlation and explanation of the experimental facts. The facts should be given as examples from various classes and not as isolated things.

ADDITIONAL SUBJECTS

Certificates will be accepted in botany, zoology, physiology, physiography, political economy, drawing, music, and other accredited subjects in secondary schools.

Manual-training High School Subjects

Technical subjects in manual-training high schools, or schools of similar grade, when duly certified, will be credited as follows:

Shopwork (not exceeding two units), domestic science and domestic art (not exceeding two units).

Business High School Subjects

Commercial subjects in business high schools or schools of similar grade, when duly certified, will be credited to the extent of four units.

ADMISSION TO ADVANCED STANDING

Due credit is given for properly certified courses of study pursued in other colleges and universities.

SPECIAL STUDENTS

All the courses of instruction are open to students of suitable age and attainments who wish, without reference to any degree, to pursue special studies. Candidates must show that they are familiar with the subjects preliminary to the studies which they wish to pursue.

SCHOLARSHIPS AND PRIZES

Applications for scholarships should be filed with the Dean of the College in which the student is to register not later than September fifteenth. All scholarships except the Kendall Scholarship and the University Scholarships are awarded for one year only, but they may be renewed. Any student holding a scholarship who fails to obtain a general average of 85 per cent on the work of any term, or whose deportment is unsatisfactory, will be reported to the President's Council, and in the absence of extenuating cir-

cumstances the scholarships will be revoked. All scholarships are awarded by the Faculty of Arts and Sciences on recommendation of its Committee on Scholarships and other University aid.

SCHOLARSHIPS FOR COMPETITION

The University offers the following scholarships to be awarded on competitive examination given at the time of the May entrance examinations. Holders of these scholarships are expected to pursue a regular course in one of the colleges of the Department of Arts and Sciences. No scholarship is awarded to a candidate whose examination average is below 80 per cent.

Kendall Scholarship.—The Kendall Scholarship, founded by the late Hon. Amos Kendall, is annually conferred on that member of the graduating class of any of the Washington High Schools who attains the highest average in the entrance examinations. This scholarship continues throughout the undergraduate course, and the student holding it pays only the registration, laboratory, and graduation fees.

University Scholarships.—The University offers also six scholarships, to be awarded annually to members of the graduating classes of any of the Washington High Schools. These scholarships continue throughout the undergraduate course, and students holding them pay only the registration, laboratory, and graduation fees.

SCHOLARSHIPS FOR ASSIGNMENT

Davis Scholarship.—This is the income of a fund of one thousand dollars given to the University in October, 1869, by Hon. Isaac Davis, of Massachusetts.

Mary Lowell Stone Scholarship.—This scholarship was founded by a woman in memory of a woman student of science. It consists of a fund of two thousand dollars, the income from which is to be paid to needy women students of science in the University.

Maria M. Carter Scholarship.—This is the income of a fund of one thousand dollars given to the University in 1871 by Mrs. Maria M. Carter.

Farnham Scholarship.—This is the income of a fund of one thousand dollars given to the University in 1871 by Mrs. Robert Farnham.

Withington Scholarship.—This scholarship was founded in 1830, by the New York Baptist Theological Seminary, to be known as the Withington scholarship. It has an annual stipend in tuition fees of sixty dollars.

Walker Scholarship.—This scholarship was founded in 1824 by William Walker, Esq., of Putnam County, Georgia. It carries an

annual stipend of one hundred dollars in tuition fees available for an undergraduate intending to enter the Christian ministry.

Morehouse Scholarship.—This scholarship was founded by Mr. A. Morehouse, of Washington, D. C., in 1861. It carries an annual stipend of sixty dollars in tuition fees available for an undergraduate intending to enter the Christian ministry.

Nellie Maynard Knapp Scholarship Fund.—A fund of \$5,000 established in 1915 by the Columbian Women in memory of its president, Mrs. Martin A. Knapp, to provide scholarships for women. Application may be made to any of the Deans in the Department of Arts and Sciences.

Henry Harding Carter Scholarships.—These scholarships, founded by Mrs. Maria M. Carter in memory of her husband, Henry Harding Carter, consist of four scholarships of the annual value of fifty dollars each, and may be awarded to deserving students who are preparing for the civil engineering profession.

The Isabel Anderson Scholarship Fund.—A fund of \$1,000 given by Isabel (Mrs. Larz) Anderson, Litt. D., for the education of needy Filipino students. Students under this fund are nominated by the Bureau of Insular Affairs of the War Department.

The Byron Andrews Scholarship Fund.—A fund founded by Mrs. Belle Fisk Andrews in memory of her husband, the late Byron Andrews, to provide scholarships "For ambitious and needy students, who desire to pursue courses in English, Latin, Journalism, History, Literature or Political Science."

Founders of Columbian Women Scholarships.—This scholarship was established by the Columbian Women in 1920. At present it consists of a fund of \$1,800 the income from which may be assigned to a deserving woman student. Application may be made to any of the Deans of the Department of Arts and Sciences.

Admiral Powell Endowment.—The Admiral Powell Endowment was made by Admiral Levin M. Powell, U. S. Navy. The income from this endowment is for the "free education of such young men as may desire to take advantage of the said endowment by way of their preparation for entrance into the Naval Academy at Annapolis, Maryland, or such as may fit them to become mates or masters in the Merchant Marine Service of the United States," and of "such apprentices as, having filled their time in the great steam manufactory establishments of the country, may apply for appointment from civil life in the Steam Engineer Department of the United States Navy." The number of scholarships awarded each year will be determined by the income from the endowment. Each scholarship will entitle the beneficiary to free tuition for one year. Such special courses of study are offered to each stu-

dent as will give him the instruction needed to accomplish the purpose for which he is awarded the scholarship.

These scholarships are especially applicable to those who intend to come up for examination as warrant officers in the Engineer Department of the Navy, to warrant officers who are preparing for examination for appointment as Ensign, to persons desiring to enter the Navy as Acting Ensigns for engineering duty, or to those who desire to fit themselves for responsible positions in the mercantile marine.

The subjects to be taken by a student will vary according to his preparation and according to the purpose for which he has been awarded the scholarship, but a year's work can be selected from the following topics:

	<i>Hours</i>
Navigation and Nautical Astronomy.....	4
Algebra and Geometry	6
Trigonometry	3
Mechanical and Machine Drawing.....	8
English	6
French	6
German	6
Spanish	6
International law	6
Commercial Geography	6
Boilers and Power Plants.....	3
Mechanical Laboratory	4
Electrical Engineering	6

Ministerial Aid.—The University authorizes the remission of a stated amount in tuition fees, to be called Ministerial Aid, which may be given to students, resident in the District of Columbia or its immediate vicinity in the regular courses of Columbian College, preparing for the ministry and not yet ordained. Any student receiving Ministerial Aid may be called upon for clerical or like work to the extent of not more than one hour a week for every twelve dollars of tuition remitted, and of not more than four hours in any one week.

University Aid.—The University authorizes the remission of a stated amount in tuition fees, to be called University Aid, which may be loaned to undergraduate students in regular courses in the Departments of Arts and Sciences, whose circumstances warrant pecuniary assistance. Any student receiving University Aid is expected to repay it as soon as possible. In occasional instances he may be enabled, while still a student, to repay it in part or whole through clerical or like service rendered the University.

PRIZES

(Only candidates for degrees may compete for these prizes)

Staughton and Elton Prizes.—The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar in each of these languages.

Ruggles Prizes.—The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded upon examination to the best two scholars in Mathematics.

Davis Prizes.—The Davis Prizes were founded by Hon. Isaac Davis, of Massachusetts, in 1847. The original endowment was five hundred dollars, "proceeds of which will afford three premiums, in cash or gold medals, of the value of five dollars, ten dollars, and of fifteen dollars annually—these premiums or prizes to be distributed annually to such members of the Senior Class as shall have made the greatest progress in elocution since their connection with the College." Only members of the Senior Class are eligible to compete for these prizes.

Daughters of the American Revolution Prizes.—These prizes founded by the Daughters of the American Revolution of the District of Columbia, consist of two gold medals, awarded annually to the two students in the graduating class who, having maintained a high standing in the several courses in History during three years, shall produce the best essays upon an assigned topic of American history.

The Thomas F. Walsh Prize.—This prize, established by Thomas F. Walsh, Esq., of Colorado, and based upon the income of one thousand dollars, consists of a gold medal awarded annually to that student of the graduating class who, having maintained a high standard in the several courses in History, shall produce the best essay upon a designated period of the History of England.

E. K. Cutter Prize.—The E. K. Cutter Prize in English was founded by the late Marion Kendall Cutter. The endowment is a fund of one thousand dollars, the income of which is given annually as a prize "for excellence in the study of English." The prize will be awarded to the member of the graduating class whose record in English, combined with general excellence, shows most marked aptitude and attainment in English studies.

Willie E. Fitch Prize.—The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of fifty dollars, which is awarded annually for the best examination in Chemistry.

The Gardiner G. Hubbard Memorial Prize.—This is a prize in American History established by Mrs. Gertrude M. Hubbard in memory of her husband, the late Gardiner G. Hubbard. The endowment is a fund of one thousand dollars, the income from which is to be given annually to that member of the graduating class who has during four years maintained a high standing in the classes of American History, and who has produced the best essays upon subjects based upon a study of some assigned period of American history.

Muth Prize.—Geo. F. Muth and Company offer a slide rule to the student who makes the highest record in Mechanical Drawing 1.

Colonial History Prize.—The Society of the Colonial Dames of America, Chapter III, offers annually a gold medal for excellence in American Colonial History. This prize will be awarded by the professor of History for general excellence in this subject as shown by class standing, by special essays, and by such other tests as shall be prescribed.

James Macbride Sterrett, Jr., Prize.—Founded by Professor James Macbride Sterrett, in memory of his son, consists of a gold medal annually awarded to that student taking Course 1 in Physics who obtains the highest average in a special examination on a given subject and in the writing of an essay on an assigned topic.

The Chi Omega Prize in Philosophy.—An annual prize of fifteen dollars is offered by the Phi Alpha Chapter of the Chi Omega Fraternity for the best essay on a philosophical subject to be announced at the close of the preceding academic year by the Committee in Charge. Essays must meet the requirements defined by the Committee and be submitted on or before April 1. Only women students who are members of a senior class in the Department of Arts and Sciences, and who are or have been registered in General Psychology, Logic, and the History of Philosophy, are eligible to compete.

Sigma Kappa English Prize.—An annual prize of a set of books to the value of ten dollars is offered by the Sigma Kappa Fraternity to the student passing the best examination in the year's work in English Rhetoric. All members of the classes in English Rhetoric are eligible for this special examination, which will be given during the final examinations.

Pi Beta Phi Prize in Political Science.—The Pi Beta Phi Fraternity has set aside ten dollars as a prize for the best essay written during the year by a student of political science on a subject approved by the instructor. The essays must be submitted by May first.

Pi Beta Phi Prize in Education.—An annual prize of ten dollars is offered by the Pi Beta Phi Fraternity for the best essay on an educational topic. The essays will be judged by a committee of three, consisting of the Professor of Education and two others designated by him. The essays must be submitted by May first.

Phi Mu Prize in Playwriting.—An annual prize is offered by the Phi Mu Fraternity for a one-act play of approved excellence written by a student in the University. The award will be made by the English Department of the University, and the George Washington University Players shall have the opportunity to give the first production of the play.

Sigma Kappa Prize in Chemistry.—A prize of ten dollars is offered annually by Zeta Chapter of Sigma Kappa Fraternity to that student who passes the best examination in Chemistry, 1, 2 and 23.

Genevieve Chatterton McCutchins Prizes.—Two cash prizes of \$25.00 and \$15.00, based on the income of a memorial fund of one thousand dollars, to be awarded annually for the best and the next best essays on subjects connected with Archaeology or Painting. In their award consideration will be given to students' knowledge of contemporary literature, history, or music, as relating to the progress of the fine arts. These prizes are open to both graduates and undergraduates.

Kappa Alpha Prize in Economics.—An annual prize of ten dollars is offered by the Alpha Nu Chapter of Kappa Alpha Fraternity for the best essay on a subject in the field of Economics. The essays will be judged by a committee of three, consisting of the Professor of Economics, a member designated by the Fraternity and a third member designated by the first two. The essays must be submitted by the first of May.

Alchemists Prize.—The Alchemists offer annually a gold medal to the graduating student who has attained the highest average in Chemical subjects, provided that he has completed an amount of Chemistry equal to the minimum required for a degree in Chemistry or Chemical Engineering and that at least three-fourths of this work has been done at George Washington University.

DAVIS PRIZE SPEAKING

The Davis Prize Speaking is held on the second Tuesday after the Easter holidays. The award of these three prizes is determined by a public speaking contest, in which the participants deliver original orations. Senior students wishing to enter the competition should report to the Dean of Columbian College not later than five weeks before the contest, and submit their orations not

later than three weeks before the contest. The prizes are awarded by a committee consisting of three members, selected by the Faculty of the Columbian College.

PRIZE AWARDS, 1919-1920

Staughton Prize.—Mildred Josephine Moore.

Davis Prizes.—First prize, Sol. S. Gluck; second prize, Harry Perlin; third prize, Cleveland Cabler.

Daughters of the American Revolution Prizes.—James M. R. Adams, Leslie Adams.

Thomas F. Walsh Prize.—May Blanche Einstein.

E. K. Cutter Prize.—Beatrice Wilkins Tait.

Willie E. Fitch Prize.—Beverly L. Clarke.

Gardner G. Hubbard Prize.—William J. Cheyney.

Muth Prize.—Hans Wange.

Colonial Dames Prize.—Mary E. Wheatley.

Chi Omega Prize in Philosophy.—Mildred Josephine Moore.

Sigma Kappa Prize.—Mary E. Morse.

Pi Beta Phi Prize in Political Science.—Ruth Lancaster.

Genevieve Chatterton McCutchins Prizes.—First prize, Jay Fuller Spoerri; second prize, James M. R. Adams; Honorable mention, Lelia B. Hardell.

HIGH SCHOOL SCHOLARSHIPS, 1919-1920

Kendall Scholarship.—Katherine Omwake, Western High School.

First University.—Frederick Schafer, McKinley Manual Training School.

Second University.—Paul F. Brandt, Central High School.

Third University.—Alvin G. McNish, McKinley Manual Training School.

Fourth University.—May C. Bergin, Central High School.

Fifth University.—Catherine Chisholm, Central High School.

Sixth University.—Clarence W. Moore, McKinley Manual Training School.

COLLEGE CHAPEL

Chapel Services are held at 12.20 p. m., Monday, Wednesday, and Friday, throughout the academic year.

The Deans of the Colleges will confer with students as they may desire on questions concerning their welfare and will cooperate with them in all ways to make the college life one of personal helpfulness.

For catalogues, application blanks, and further information, address

THE REGISTRAR,

The George Washington University,

2023 G Street, Washington, D. C.

FEES

1. Annual registration fee	\$ 2
2. Tuition fee for each semester-hour credit of courses leading to the degrees of A. B., S. B., A. M., S. M., C. E., E. E., M. E.	6
The maximum fee charged in any one year is \$180.	
3. Tuition fee per annum for graduate courses leading to the degree of Ph. D.	180
4. Registration fee for students taking problems of the Beaux Arts Society	2
5. Laboratory courses:	
Material fees:	
Experimental Psychology	2
Geology 1, Zoology, Botany, Domestic Science, each	5
Mechanical Engineering, 9, 10, 11, each	5
Chemistry 2, 3, 7, 28 and 30; Electrical Engineering; Physics, each	10
Chemistry 4, (Assaying)	20
Chemistry 8	5
Chemistry, 20, 21 and 25, each	25
Deposits to cover breakage of apparatus issued, the amount paid in excess of breakage to be returned:	
Chemistry, 2, 3, 7, 8, 28 and 30, each	10
Chemistry, 20	15
Chemistry, 21 and 25, each	20
6. Microscope rental in Botany and Zoology 1	5
7. Tuition fee for the following special course, not taken by candidates for a degree:	
Chemistry 4 (Assaying)	40
8. Reinstatement fee	2
9. Fee for certificates under the seal of the University	2
10. Fee for graduation	10

Students are registered for the college year unless otherwise stated on the registration paper. All requests for withdrawals or for changes in courses of study must be made in writing to the Dean, and a student is liable for all charges for the courses for which he has registered unless changes are approved by the Dean.

All charges are by the scholastic year. Registration, library and other special fees, and laboratory deposits are due in full in advance. Tuition and laboratory material fees may be paid in eight monthly installments in advance. Students unable to pay

their fees monthly in advance will be required to furnish as security an acceptable personal or corporate bond for \$200 for which a charge of \$3.00 will be made.

The first monthly payment is due not later than October first, and subsequent monthly payments are due on the first of each month. A student has no right to attend a class if his fees are unpaid and may be excluded by the Dean.

All fees are payable at the office of the treasurer of the University, 2101 G Street.

COLUMBIAN COLLEGE

ADMISSION

Candidates for admission to the Freshman Class in Columbian College must meet the general admission requirements (p. 25) of fifteen units. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. *The fifteen units of the entrance requirement must include English, 3 units; Algebra through quadratics, 1½ units; Plane Geometry, 1 unit; and one of the following languages: Latin, Greek, French, German, or Spanish, 2 units.* The remainder of the requirements is elective and may be satisfied in general by any accredited secondary school subjects.

For admission to advanced standing or as special students, see (p. 31.)

REQUIREMENTS FOR DEGREES

The undergraduate degrees offered by Columbian College are Bachelor of Arts, and Bachelor of Science in Medicine. To be recommended for either of these degrees, the student must satisfy the admission requirements, and must complete at least one hundred and twenty semester-hours of undergraduate courses at least eighteen semester-hours of which (or twelve semester-hours in the combined courses), must be completed in Columbian College. A "semester-hour" of credit is one recitation or lecture a week or one laboratory period a week for one semester. No time limit for the course is prescribed and the degree is given when the total of prescribed and elective studies is completed.

The class hours are so arranged that persons who can give only part time to college work may complete a full college course and obtain a degree. Such students usually take six years to complete the course. The two class periods from five-ten o'clock to six-fifty schedule classes in required and elective subjects. The drawing rooms and laboratories are open from nine o'clock in the morning until half past ten at night.

One grade of special distinction is recognized in awarding the bachelor's degree. It is shown by inserting the words "With Distinction" on the diploma after the name of the degree. It is awarded under the following conditions:

"That the names of all students who have received a mark of at least B (90 per cent) on courses representing at least sixty (60) per cent of all hours taken by them be submitted by the Dean to the Faculty of the Department in which the student shall be studying for a degree;

"That the Faculty, after separate consideration of each individual case, shall, if it see fit, recommend the awarding of the degree 'With Distinction' to students who shall have fulfilled the conditions above specified."

FOR THE DEGREE OF BACHELOR OF ARTS

To be recommended for the degree of Bachelor of Arts, the student must complete courses of study amounting to at least one hundred and twenty semester-hours including a group of prescribed subjects.

There are six curriculum groups, each leading to the degree of Bachelor of Arts. Every candidate for the degree of Bachelor of Arts selects one of these groups, and thereafter he is not permitted to change to another group except on condition that he fulfill the requirements of the group to which he changes.

The studies of the last two years are largely elective, subject to such administrative supervision as will insure the general consistency and the liberal character of the courses selected.

The scope of the six curriculum groups is a provision alike for the diversity in the subjects of the secondary school curriculum leading to a college course, and the needs of the various graduate and professional courses of study in the University for which the college course is a preparation.

Group I emphasizes Latin and Greek studies, and it would naturally be taken by the student whose preparatory work has included four years of Latin or two years of preparatory Latin supplemented by "Latin B" in college.

Group II emphasizes the Modern Languages, affording to students whose preparation has not included Latin the humanistic influences of the literatures of the Modern Languages.

Group III emphasizes Mathematics and the Natural Sciences, and would naturally be selected by the student whose college preparation has been scientific rather than literary.

Group IV emphasizes Political Science and Economics and History, constituting important preparation for the Law School or the public service.

Group V includes all the pre-medical subjects and is specially constituted as a regular college course in preparation for the Medical School.

Group VI emphasizes Commerce and kindred subjects in preparation for commercial life or the public service.

(NOTE—Whenever in the following groups a modern language is taken if it is elementary, the same language shall be continued the succeeding year.)

GROUP I, LATIN

	<i>Semester Hours</i>
Latin*	12
Foreign Languages	18
English	12
History	6
Mathematics	6
Philosophy	6
Electives	60
	120

GROUP II, MODERN LANGUAGES

	<i>Semester Hours</i>
Modern Languages	24
English	12
History	12
Philosophy	6
Political Science	6
Natural Science	6
Electives	54
	120

GROUP III, NATURAL SCIENCE

	<i>Semester Hours</i>
Natural Science	18
Mathematics	12
English	6
Modern Languages	12
Philosophy	6
Economics	6
Electives	60
	120

GROUP IV, POLITICAL SCIENCE

	<i>Semester Hours</i>
Political Science and Economics	18
History	12
English	6

* Students who offer only the two elementary units of Latin for admission may qualify for Group I by taking "Latin B" in college (see p. 95), but this will not be counted as a part of the twelve semester-hours of Latin required in this group.

DEPARTMENT OF ARTS AND SCIENCES

Modern Languages	12
Mathematics	6
Philosophy	6
Electives	60

120

GROUP V, PRE-MEDICAL

	<i>Semester</i>
	<i>Hours</i>
Chemistry, 1, 2 and 8	16
Physics, 3 and 4	10
Zoology, 3	8
English	6
Modern Languages (preferably French or German) ..	12
Philosophy (including Psychology)	6
Mathematics	6
Electives	56

120

GROUP VI, COMMERCE

	<i>Semester</i>
	<i>Hours</i>
Commerce	16
Economics	10
Political Science and History	18
English	6
Modern Languages	12
Mathematics	6
Philosophy (including Psychology)	6
Electives	46

120

COMBINED SIX-YEAR COURSE FOR THE DEGREES OF
BACHELOR OF ARTS AND BACHELOR OF LAWS

Professional courses in Law will be credited towards the degree of Bachelor of Arts to the extent of thirty semester hours. On the completion of ninety semester hours of work in college, at least twelve semester-hours of which must be taken in *Columbian College*, including all of the required subjects in some one of the curriculum groups, and of the first year of the regular course in the Law School, the student will receive the degree of Bachelor of Arts. This combined course contemplates three years of college study and three years in the Law School. The effect is to shorten the period of study for the two degrees one year.

**COMBINED SEVEN-YEAR COURSE FOR THE DEGREES OF
BACHELOR OF ARTS AND DOCTOR OF MEDICINE**

Professional courses in Medicine will be credited towards the degree of Bachelor of Arts to the extent of thirty semester hours. On the completion of ninety semester hours of credit in college, *at least twelve semester-hours of which must be taken in Columbian College*, including all of the required subjects in some one of the curriculum groups, preferably Group V, and on the completion of the first year of the regular course in the Medical School, the student will receive the degree of Bachelor of Arts. This combined course contemplates three years of college study and four years in the Medical School. The effect is to shorten the period of study for the two degrees one year.

PUBLIC SERVICE COURSES

These courses are designed to impart general culture and a broad grasp of public questions, and thus to provide a training that will prove of value in commercial life, the practice of law, or public service. The work prescribed is broader than the requirement for entrance into the Consular and Diplomatic Service, so that the student who completes with credit the appropriate courses has a training that will fit him to rise to the higher positions in the service to which he may be appointed.

Regular students who are preparing for the Government Service should register for Group IV or Group VI, of the curriculum requirements for the degree of Bachelor of Arts, and should elect, also, the subjects named in Section 2 of the "Regulations Governing Examinations Promulgated by the Board of Examiners, December 13, 1906."

Special students who are preparing for the Consular Service examinations should register for such courses as relate to subjects named in Section 2, of the Government Regulations.

**REGULATIONS GOVERNING EXAMINATIONS PROMULGATED
BY THE BOARD OF EXAMINERS, DECEMBER 13, 1906***

Section 2 reads as follows: The examinations will consist of an oral and a written one, the two counting equally. The object of the oral examination will be to determine the candidate's business ability, alertness, general contemporary information, and natural fitness for the service, including moral, mental, and physical qualifications, character, address, and general education and good command of English. In this part of the examination the applications previously filed will be given due weight by the Board of Ex-

* As amended by Board of Examiners, February 18, 1911.

aminers, especially as evidence of the applicant's business experience and ability. The written examination will include those subjects mentioned in the Executive order, to-wit, at least one modern language other than English—French, German, or Spanish;* the natural, industrial, and commercial resources and the commerce of the United States, especially with reference to possibilities of increasing and extending the foreign trade of the United States; political economy, and the elements of international, commercial, and maritime law. It will likewise include American history, government, and institutions; political and commercial geography; arithmetic (as used in commercial statistics, tariff calculations, exchange, accounts, etc.); the modern history, since 1850, of Europe, Latin America, and the Far East, with particular attention to political, commercial, and economic tendencies. In the written examination, composition, grammar, punctuation, spelling, and writing will be given attention.

Students who seek a designation for consular and diplomatic examination should apply to the Department of State for full information. Consular service examinations are held in Washington only.

Suggestions for Freshmen Courses in the Curriculum Groups

GROUP I, LATIN

Latin 1 or "B," English, History, Mathematics, French or German.

GROUP II, MODERN LANGUAGES

French, German, English, History, Chemistry 1 (or Chemistry 1 and 2) or Botany.

French or German, Spanish, English, History, Mathematics.

French or German, Spanish, English, Political Science, Zoology or Botany.

GROUP III, NATURAL SCIENCE

Chemistry 1 and 2, Mathematics, English, French, German or Spanish, Economics.

GROUP IV, POLITICAL SCIENCE

Political Science, History, English, French or German, Mathematics.

Economics, Political Science, English, Mathematics, Spanish.

Economics, English, History, Mathematics, Spanish.

GROUP V, PRE-MEDICAL

Chemistry 1 and 2, Zoology 3, English, French or German, Mathematics.

GROUP VI, COMMERCE

Economics, Commerce, English, French or Spanish, Political Science or History, Mathematics.

GENERAL SUGGESTIONS

English Rhetoric (1 or 2) is required in every curriculum group. Mathematics is required in every group except the second, and the required amount must be taken in college; History should begin with Mediaeval history; Modern Languages should be taken in a sequence of at least two years in the same language. Information about all studies is given in the alphabetical arrangement of subjects under "Courses of Instruction."

The specified subjects in the selected group should be taken in the earlier part of the college course leaving the electives for the later years. Subjects should be chosen with view to an even distribution through the days of the week. Most courses come three times a week, either on Monday, Wednesday and Friday, or on Tuesday, Thursday and Saturday. Most general culture subjects are given in two sections, one early in the day and one late. Students who have all their time for college work should take the early sections. The late sections are given in the last two periods, at five-ten o'clock or at six o'clock, in order to afford to those employed in Government offices the opportunities of college study. Teachers in the public schools can usually take also the courses announced for four o'clock.

Fifteen hours a week is a standard amount of work for completing the college course in four years; twenty hours a week should be regarded as a maximum under any conditions. When the college work is limited to the last two periods and the evening laboratory periods, the length of the course is generally six years.

Detailed information about fees is given on page 40.

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICINE
SIX-YEAR COURSE FOR THE DEGREES OF BACHELOR OF
SCIENCE IN MEDICINE AND DOCTOR OF MEDICINE**

Regular students in this course will complete in two years the prescribed work in college, at least twelve semester hours of which must be taken in Columbian College, and the four-year course in the Medical School. On the completion of this six-year course, the student will receive at the same time the degrees of Bachelor of Science in Medicine and Doctor of Medicine. The curriculum for the Freshman and Sophomore years in college, including the pre-medical requirements, is as follows:

DEPARTMENT OF ARTS AND SCIENCES

Freshman Year

	<i>Semester Hours</i>
Chemistry 1 and 2	10
English 1 or 2	6
French or German	6
Mathematics	6
Zoology 3	8
	36

Sophomore Year

	<i>Semester Hours</i>
Chemistry 8	6
French, German or Spanish	6
Philosophy (including Psychology)	6
Physics 3 and 4	10
Zoology 2	6
Electives	2
	36

SPECIAL COURSE FOR ADMISSION TO THE MEDICAL SCHOOL

First Year

	<i>Semester Hours</i>
Chemistry 1 and 2	10
English 1 or 2	6
Zoology 3	8
Electives	6
Total semester hours	30

Second Year

	<i>Semester Hours</i>
Physics 3 and 4	10
Chemistry 8	6
Electives other than Natural Science	14
Total semester hours	30

NOTE.—The Council on Medical Educational of the American Association states:—"Of the 60 semester hours required as the measurement of 2 years work, at least 18, including the 6 semester hours in English, should be in subjects other than the physical, chemical, or biologic science."

COLLEGE OF ENGINEERING

ADMISSION

Candidates for admission to the Freshman Class in the Civil Engineering, Electrical Engineering Mechanical Engineering, Chemical Engineering and Physics Courses are required to present fifteen units for admission, distributed as follows:

	<i>Units</i>
English	3
French, German or Spanish	2
Plane and Solid Geometry	1½
Elementary and Advanced Algebra	2
Plane Trigonometry	½
Chemistry	1
Physics	1
Electives	4
<hr/>	
Total	15

Candidates for admission to the Freshman Class in the Chemistry Course are required to present fifteen units for admission, distributed as follows:

	<i>Units</i>
English	3
French, German or Spanish	2
Plane Geometry	1
Elementary and Intermediate Algebra	1½
Chemistry	1
Electives	6½
<hr/>	
Total	15

Candidates for admission to the Freshman Class in the Architectural Course are required to present fifteen units for admission, distributed as follows:

	<i>Units</i>
English	3
French, German or Spanish	2
Plane and Solid Geometry	1½
Elementary and Advanced Algebra	2
Plane Trigonometry	½
Electives	6
<hr/>	
Total	15

For detailed descriptions of the requirements in each preparatory subjects see pages 25-31.

For admission to advanced standing or as a special student, see page 31.

COURSES FOR A DEGREE

Seven courses are offered:

- I. CIVIL ENGINEERING.
- II. ELECTRICAL ENGINEERING.
- III. MECHANICAL ENGINEERING.
- IV. CHEMICAL ENGINEERING.
- V. CHEMISTRY.
- VI. ARCHITECTURE.
- VII. PHYSICS.

These courses occupy four years each, and lead to the degree of Bachelor of Science in Civil Engineering, in Electrical Engineering, in Mechanical Engineering, in Chemical Engineering, in Chemistry, in Architecture and in Physics, respectively. Graduate courses of one year under the Faculty of Graduate Studies of the George Washington University are open to those who receive the appropriate engineering degrees, and lead, respectively, to the degrees of Civil Engineer, Electrical Engineer, and Mechanical Engineer.

The class hours are so arranged that persons who can give only part time to college work may complete a full engineering course and obtain a degree. Such students usually take six years to complete the course. Classes in all the general studies of the engineering courses and in many of the technical subjects are regularly scheduled in the two class periods from five-ten o'clock to six-fifty; and other technical courses are given in alternate years in these periods. The drawing rooms and laboratories are open from nine o'clock in the morning until half past ten at night.

REQUIREMENTS FOR A DEGREE

The arrangement of the topics in each of the regular courses for degree is shown below. The numbers following the names of subjects refer to the courses as given in the list of Department Subjects on page 66, to which reference should be made for more complete description.

CIVIL ENGINEERING COURSE LEADING TO THE DEGREE OF
BACHELOR OF SCIENCE IN CIVIL ENGINEERING

FRESHMAN YEAR

	<i>Semester-Hour Credits</i>
Chemistry, 1, 7.....	10
General Chemistry and Qualitative Analysis.	
English, 1 or 2.....	6
Rhetoric.	
French, German or Spanish.....	6
Mechanical Drawing, 1, 8.....	6
Mechanical Drawing; Descriptive Geometry.	
Mathematics, 9 or 12.....	6
Trigonometry; Analytic Geometry.	

SOPHOMORE YEAR

Astronomy, 2.....	2
Practical Astronomy.	
Civil Engineering, 1, 3, 4.....	14
Surveying; Highway Engineering; Materials of Construction.	
Commerce, 33.....	4
Commercial Law.	
Mathematics, 18 or 19.....	6
Calculus.	
Physics, 1, 2.....	10
General Physics; Laboratory Physics.	

JUNIOR YEAR

Applied Mathematics, 20, 21, 22.....	12
Mechanics; Hydraulics, Mechanics or Materials.	
Civil Engineering, 2, 22.....	16
Railroad Engineering; Theory of Structures.	
Electrical Engineering, 1.....	4
Engineering Electricity.	
Geology, 21.....	4
Engineering Geology.	

SENIOR YEAR

Civil Engineering, 21, 23, 24, 27.....	30
Hydraulic Engineering; Theory of Structures; Sanitary Engineering; Reinforced Concrete.	
Elective.....	4

**ELECTRICAL ENGINEERING COURSE LEADING TO THE
DEGREE OF BACHELOR OF SCIENCE IN ELEC-
TRICAL ENGINEERING**

FRESHMAN YEAR

Identical with the Civil Engineering Course.

SOPHOMORE YEAR

*Semester-Hour
Credits*

Civil Engineering, 4.....	4
Materials of Construction.	
Commerce, 33	4
Commercial Law.	
Mathematics, 18 or 19.....	6
Calculus.	
Mechanical Drawing, 2.....	4
Machine Drawing.	
Mechanical Engineering, 1.....	8
Mechanism.	
Physics, 1, 2	10
General Physics; Laboratory Physics.	

JUNIOR YEAR

Applied Mathematics, 20, 21, 22.....	12
Mechanics; Hydraulics; Mechanics of Materials.	
Chemistry, 6	2
Metallurgy.	
Civil Engineering, 5, 6.....	2
Surveying Instruments; Foundations.	
Electrical Engineering, 2, 4, 5.....	10
Direct Current Theory and Machinery; Electrical Engineering Laboratory.	
Mechanical Engineering, 9, 20.....	8
Engineering Laboratory; Thermodynamics, Steam Boilers and Power Plant Accessories.	

SENIOR YEAR

Electrical Engineering, 21, 22, 23, 24, 27, 28, 29, 30.....	26
Alternating Currents; Electrical Distribution; Electrical Applications; Electrical Engineering Laboratory; Electric Railways; Telephones and Telegraph; Electric Illumination; Design.	
Mechanical Engineering, 10, 23.....	4
Engineering Laboratory; Hydraulic Machinery.	
Electives	6

MECHANICAL ENGINEERING COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN ME- CHANICAL ENGINEERING

FRESHMAN YEAR

Identical with the Civil Engineering Course

SOPHOMORE YEAR

	<i>Semester-Hour Credits</i>
Civil Engineering, 4.....	4
Materials of Construction.	
Commerce, 33	4
Commercial Law.	
Mathematics, 18 or 19.....	6
Calculus.	
Mechanical Drawing, 2.....	4
Machine Drawing.	
Mechanical Engineering, 1.....	8
Mechanism.	
Physics, 1, 2.....	10
General Physics; Laboratory Physics.	

JUNIOR YEAR

Applied Mathematics, 20, 21, 22.....	12
Mechanics; Hydraulics; Mechanics of Materials.	
Civil Engineering, 22.....	5
Theory of Structures.	
Mechanical Engineering, 9, 20, 24, 26, 27.....	16
Engineering Laboratory; Thermodynamics, Steam Boilers and Power Plant Accessories; Advanced Mechanism, Dynamics of Machinery; Power Plant Problems.	
Electrical Engineering, 1.....	4
Engineering Electricity.	

SENIOR YEAR

Chemistry, 6	2
Metallurgy.	
Civil Engineering, 5, 6.....	2
Surveying Instruments; Foundations.	
Electrical Engineering, 4, 5.....	4
Electrical Laboratory.	
Mechanical Engineering, 10, 11, 23, 25, 28, 29, 30, 31.....	21
Engineering Laboratory; Hydraulic Machinery;	

*Semester-Hour
Credits*

Machine Design; Industrial Management; Heating and Ventilating; Gas Engines; Steam Turbines.

Electives 4

CHEMICAL ENGINEERING COURSE LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

FRESHMAN YEAR

Architecture, 2	2
Free-hand Drawing.	
Chemistry, 1, 2	10
General Chemistry; Laboratory Practice.	
English, 1 or 2	6
Rhetoric.	
French, German or Spanish	6
Mathematics, 9 or 12	6
Trigonometry; Analytic Geometry.	
Mechanical Drawing 1	4
Mechanical Drawing.	

SOPHOMORE YEAR

Chemistry, 3, 20	10
Chemical Laboratory; Qualitative Analysis.	
Geology, 1	4
Mineralogy.	
Mathematics, 18 or 19	6
Calculus.	
Mechanical Engineering, 1	8
Mechanism.	
Physics, 1 and 2	10
General Physics, Laboratory Physics.	

JUNIOR YEAR

Applied Mathematics, 20, 22	8
Mechanics; Mechanics of Materials.	
Chemistry, 6, 21, 23	14
Metallurgy; Quantitative Analysis; Organic Chemistry.	
Commerce, 33	4
Commercial Law.	

	<i>Semester-Hour Credits</i>
Electrical Engineering, 1.....	4
Engineering Electricity.	
Mechanical Engineering, 20.....	6
Thermodynamics, Steam Boilers and Power Plant Accessories.	
SENIOR YEAR	
Chemistry, 24, 25, 26, 29.....	22
Organic Chemistry; Organic Laboratory; Physical Chemistry; Industrial Chemistry.	
Mechanical Engineering, 9, 10.....	4
Mechanical Laboratory.	
Electives	6

**CHEMICAL COURSE LEADING TO THE DEGREE OF BACHE-
LOR OF SCIENCE IN CHEMISTRY**

FRESHMAN YEAR

Architecture, 2.....	4
Free-hand Drawing.	
Chemistry, 1, 2.....	10
General Chemistry; Laboratory Practice.	
English, 1 or 2.....	6
Rhetoric.	
French, German or Spanish.....	6
Mathematics, 3 or 6.....	6
College Algebra; Solid Geometry; Elementary Trigonometry.	
Mechanical Drawing, 4.....	4
Mechanical Drawing.	

SOPHOMORE YEAR

Chemistry, 3, 20.....	10
Chemical Laboratory; Qualitative Analysis.	
French, German or Spanish.....	6
Mathematics, 9 or 12.....	6
Trigonometry; Analytic Geometry.	
Physics, 3, 4.....	10
General Physics; Physics Laboratory.	
Electives	4

JUNIOR YEAR

Chemistry, 21 (4), 23.....	12
Quantitative Analysis; Organic Chemistry.	
Commerce, 33	4
Commercial Law.	

	<i>Semester-Hour Credits</i>
French, German or Spanish.....	6
Geology, 1	4
Mineralogy.	
Mathematics, 18 or 19.....	6
Calculus.	
Electives	4
SENIOR YEAR	
Chemistry, 6, 24, 25, 26, 27.....	22
Metallurgy; Organic Chemistry; Organic Labora- tory; Physical Chemistry; Stereo-Chemistry.	
Geology, 2	4
General Geology.	
Electives	8

**COURSE IN ARCHITECTURE LEADING TO THE DEGREE OF
BACHELOR OF SCIENCE OF ARCHITECTURE**

FRESHMAN YEAR

Architecture, 2, 3, 4	14
Free-hand Drawing; Architectural Drawing and Elementary Design; Projections; Shades, Shad- ows and Perspective.	
English, 1 or 2	6
Rhetoric.	
French	6
Mathematics, 9 or 12.....	6
Trigonometry; Analytic Geometry.	

SOPHOMORE YEAR

Architecture, 5, 6, 8	18
Architectural Design; Free-hand Drawing; His- tory of Architecture.	
English, 5 or 6	6
English Literature.	
French	6
Geology, 2	4

JUNIOR YEAR

Architecture, 20, 21, 22, 24, 25, 33, 41.....	30
History of Architecture; Building Construction; Sanitation; Pen and Ink Rendering; Design; Water Color, Heating and Ventilating.	
Physics 1 or 3.....	6
General Physics.	

SENIOR YEAR	Semester-Hour Credits
Architecture, 27 or 37, 28, 39, 40, 43, 44.....	30
Design; History of Painting and Sculpture; Building Construction; Water Color; Office Prac- tice; Advanced Construction.	
Commerce, 33	4
Commercial Law.	
Electrical Engineering, 29.....	2
Electric Illumination.	
Electives	2

PHYSICAL SCIENCE COURSE LEADING TO THE DEGREE
OF BACHELOR OF SCIENCE IN PHYSICS

FRESHMAN YEAR

Chemistry, 1, 2	10
General Chemistry and Laboratory Chemistry.	
English, 1 or 2	6
Rhetoric.	
French, German or Spanish	6
Mathematics, 9 or 12	6
Trigonometry and Analytic Geometry.	
Mechanical Drawing, 1, 8	6
Mechanical drawing and Descriptive Geometry.	

SOPHOMORE YEAR

Chemistry, 20	6
Qualitative Analysis.	
French, German or Spanish	6
Mathematics, 18 or 19	6
Calculus.	
Mechanical Engineering, 1	8
Mechanism.	
Physics, 1, 2	10
General Physics and Laboratory Physics.	

JUNIOR YEAR

Chemistry, 26	4
Physical Chemistry.	
Economics, 1 or 2	6
General Economics.	
Physics, 21, 24 (or 22, 23)	12
Heat and Thermodynamics, Mechanics and Sound.	
Physics, 25	6
Advanced Laboratory.	
Electives*	8

SENIOR YEAR

Mathematics, 30	4
Differential Equations.	
Physics, 22 23 (or 21, 24)	12
Light, Electricity and Magnetism.	
Physics, 25	8
Advanced Laboratory.	
Electives*	10

SPECIAL STUDENTS

All the courses of instruction are open to students of suitable age and attainments who wish, without reference to any degree, to pursue special studies. Candidates must show that they are familiar with the subjects preliminary to the studies which they wish to pursue.

FEES

The annual tuition fee for a student taking courses aggregating fifteen or more hours a week throughout the year is one hundred and eighty dollars. Part time students pay in accordance with the amount of work taken, the fee being six dollars for each semester-hour credit. For courses in the laboratories there are additional laboratory fees. Full statements in regard to the fees are given on pages 39 and 40.

* It is suggested that a major part of the electives be chosen from the following list: Applied Mathematics, 21, 22; Astronomy, 1; Chemistry, 3, 30; Commerce, 20, 23, 40, 45; Electrical Engineering, 4, 6, 21, 24; Geology, 2; Mechanical Engineering, 20; Philosophy, 1, 2.

TEACHERS COLLEGE

The purpose of Teachers College is to provide (a) collegiate training for teachers, (b) instruction in education as a department of science.

The aims of the Teachers College may be summarized as follows:

- a. To promote the knowledge of educational science.
- b. To fit students for the higher positions in the public school service.
- c. To secure to teaching the rights and prerogatives of a profession.
- d. To aid in raising the standards of educational practice, and so to increase the efficiency of public education.

ORGANIZATION

Teachers College provides a four years' college course, the first two years of which are devoted to a foundation of general culture courses, and the last two to professional courses and to specialization in the subjects which the student expects to teach. The schedule of courses is arranged so as to meet the convenience of both full time and part time students. By attending afternoon and Saturday classes, teachers in the schools of Washington and vicinity may complete all the requirements for a degree without giving up their positions.

ADMISSION

Candidates for admission to the Freshman Class in Teachers College must meet the general admission requirements (p. 32) of fifteen units. *Three of these must be in English, two and one-half in Mathematics, and two in one of the following languages: Latin, Greek, French, German, or Spanish.* The remainder of the required fifteen units may be satisfied by any accredited secondary subjects.

Persons desirous of taking work without becoming candidates for a degree, may be admitted as *special students* on the presentation of satisfactory evidence that they are qualified to pursue the work to advantage.

ADVANCED STANDING

Students transferring from normal schools, colleges, and other schools of similar rank will be admitted to such advanced standing as the courses they have pursued warrant. Graduates of normal schools with two-year courses resting upon graduation from an approved four-year high school are granted forty-eight semester-hours of advanced standing.

For further information concerning admission as special student or to advanced standing, see p. 31.

GRADUATION

On the completion of courses of study aggregating a minimum of one hundred and twenty-four semester-hours, the University confers the degree of Bachelor of Arts and a Bachelor's Diploma in Education. These courses are partly prescribed and partly elective, and the degree is conferred when the necessary work has been completed, no time limit being set. The prescriptions are as follows:

<i>a. In general culture subjects:</i>		<i>Semester Hours</i>
Biology*	_____	6
English	_____	6
Foreign Language*	_____	12
History*	_____	12
Psychology and Logic	_____	6
Philosophy	_____	6

For the subjects marked with an asterick (*) electives may be substituted to the extent that approved secondary school work has been done in them. The foreign language requirement must fall in one language, while in history it is required that survey of the world's history be obtained.

b. In professional subjects the following twenty semester-hours are prescribed, although teachers of experience may receive credit for Observation and Practice Teaching.

	<i>Semester Hours</i>
History of Education	4
Principles of Education	2
Principles of Teaching	2
School Hygiene	2
Observation and Practice Teaching	4
Electives in Education	6

Graduates of approved normal schools may satisfy the requirement in the professional subjects by the completion of twelve semester-hours exclusive of the credits for Observation and Practice Teaching. These hours are elective with the advice and consent of the Dean.

c. All regular students must complete before graduation at least eighteen semester-hours in a major, and at least ten semester-hours in a minor subject, in addition to the first required course, if any, in the same subject.

THE TEACHER'S DIPLOMA

The Bachelor's Diploma in Education is granted in connection with the Bachelor of Arts degree (or, to students without experience in teaching, in connection with higher degrees) upon the fulfillment of the following conditions: (1) The student must have satisfactorily completed the courses of study defined above. (2) He must, in the judgment of his instructors, also possess other qualifications essential to success in teaching.

A diploma corresponding to the degree is given also in connection with higher degrees, provided a graduate student has taken a major or minor in education, has satisfied the requirements *a*, *b* and *c* above, and has had at least two years of successful experience in teaching.

A student holding a degree from an approved college or university may, by satisfying requirements *a*, *b* and *c* above, earn a diploma without registering for a degree.

OBSERVATION AND PRACTICE TEACHING

Through the courtesy of the officials of the public schools, opportunities for observation and teaching are given in the high and elementary schools of Washington.

EXPERIMENTAL WORK

Teachers College maintains a psychological laboratory for introductory experimental work. The equipment is specially adapted to the investigation of problems of interest to students of education.

The school system of a large city, moreover, offers abundant opportunity for observation and for the study of methods and other practical educational problems.

TEACHERS APPOINTMENT BUREAU

Teachers College maintains a Teachers Appointment Bureau for the purpose of aiding students who are studying, or have studied, in the University, to secure positions as teachers. This service is performed gratuitously, in the interest both of students and of superintendents of schools and boards of education wishing to employ teachers.

SCHEDULE OF CLASSES
IN
COLUMBIAN COLLEGE AND TEACHERS COLLÉGE
Monday, Wednesday, Friday

	<i>Course</i>		<i>Instructor</i>
9.15	Education 20	Principles of Teaching	Ruediger
	English 5	English Literature	Bolwell
	French 1A	First year French	Protzman
	History 7	European History	Kayser
	Mathematics 3A	Alg. Geom. Trig	Hankin
	Pol. Sci. 27	International Rel.	Hill
	Spanish 1A	First Year Spanish	Patison
10.15	English 22	Shakespeare's Comedies	Wilbur
	English 36	English Novel	Bolwell
	French 3A	Second Year French	Henning
	German 20	Literature	Schoenfeld
	Greek A	Elementary Greek	Smith
	Mathematics 9	Trig., Analytic Geom.	Erwin
	Philosophy 1, 3	Psychology; Logic	Metcalf
	Pol. Science 1, 2	U. S. Govt., State Govts.	Hill
	Spanish 1C	First Year Spanish	Patison
	Spanish 3A	Second Year Spanish	Doyle
11.15	Economics 1	General Economics	Kern
	German 3	Second year German	Schoenfeld
	Greek 2	Xenophon, etc.	Smith
	Physics 1A	General Physics	Cheney
	Pol. Sci. 29, 30	Int'l Law, Diplomacy	Hill
1.45	German 7	Third Year German	Schoenfeld
	Home Economics 1	Domestic Science	Evans
	Latin 1	Livy, etc.	Smith
	Philosophy 23	Laboratory Psychology	Metcalf
	Physics 3A	Introductory Physics	Brown
2.45	Greek 1	Herodotus, etc.	Smith
	History 1, 2	Medieval History	Swisher
	History 27, 23	Latin-American History	Churchill
4.00	English 29	American Literature	Croissant
	French 5	19th-17th Century	Henning
	History 3, 4	European History	Swisher
	Latin 2	Cicero, etc.	Smith
	Spanish 22	Literature	Doyle
5.10	Commerce 40, 42	Ind.Hist.U.S.; World Pol.	Kochenderfer
	English 2	Rhetoric	Wilbur
	English 31	Journalism	Chace
	English 57	English Drama	Croissant
	French 2A	First Year French	Kramer
	French 7	Conversational	Maret
	French 21	Literature	Henning
	German 22	Literature	Schoenfeld
	History 25B	English History	Churchill
	Home Economics 2	Domestic Science	Evans
	Italian 2	First Year Course	Lamore
	Mathematics 4A	Algebra; Trig.	Hodgkins, H. G.
	Mathematics 4B	Algebra; Trig.	Hankin

SCHEDULE OF CLASSES

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	Course	Instructor
5.10	Mathematics 12A Trig.; Anal. Geom.	Erwin
	Philosophy 2, 4 Psychology; Logic	Ruediger
	Physics 1B General Physics	Cheney
	Physics 24 Mechanics, etc.	Brown
	Portuguese 4 Second Year Course	Coutinho
	Spanish 2A First Year Spanish	Patison
	Spanish 2E First Year Spanish	Jones
	Spanish 6 Third Year Spanish	Doyle
	Zoology 2 Vertebrates	Bartsch
	Zoology 3 Premedical Course	Bartsch
6.00	Commerce 36 Commercial Geography	Kochenderfer
	Economics 2 General Economics	Kern
	English 30 Types of Literature	Croissant
	English 53 Browning and Tennyson	Wilbur
	French 2B First Year French	Cullom
	French 8 Conversation	
	German 4 Second Year German	Schmidt
	History 30 Amer. Constitutional Hist.	McArthur
	Italian 4 Second Year Course	Lamore
	Mathematics 6A Alg., Geom., Trig.	Hodgkins, H. G.
	Mathematics 6B Alg., Geom., Trig.	Hankin
	Mathematics 12B Trig., Analytic Geometry	Erwin
	Physics 3B Introductory Physics	Brown
	Portuguese 1 First Year Course	Coutinho
	Spanish 2B First Year Spanish	Protzman
	Spanish 2F First Year Course	Jones
	Spanish 4A Second Year Spanish	Doyle
	Spanish 7 Spanish Conversation	Vasquez
	Zoology 1 Invertebrates	Bartsch

Tuesday, Thursday, Saturday

9.15	Botany 1A General Botany	Griggs
	French 1B First Year French	Protzman
	Spanish 3B Second Year Spanish	Doyle
	History 5, 6 Ancient History	Kayser
	Mathematics 3B Alg., Geom., Trig.	Hankin
	Mathematics 19 Calculus	Hodgkins, H. L.
	Spanish 1B First Year Spanish	Patison
10.15	English 1 Rhetoric	Wilbur
	English 26 English Prose	Croissant
	History 25A English History	Churchill
	French 3B Second Year French	Protzman
	Mathematics 24, 25 Theory of Equations, etc.	Erwin
	Philosophy 20, 21 Hist. of Phil.	Richardson
11.15	English 25 English Drama	Croissant
	German 1 First Year German	Schoenfeld
	History 9 American History	Churchill
	Latin B Cicero and Vergil	Smith
12.00	Chemistry 1 General Chemistry	McNeil
5.10	Architecture 8 History of Architecture	Bibb
	Botany 1B General Botany	Griggs
	Chemistry 1 General Chemistry	McNeil

	<i>Course</i>	<i>Instructor</i>
5.10	Commerce 22 Foreign Trade	Kochenderfer
	Economics 49 Statistics	Phillips
	English 6 English Literature	Bolwell
	Ethnology 50 General Introduction	Michelson
	French 2C First Year French	Protzman
	French 4A Second Year French	Kramer
	French 6 Literature	Henning
	German 2 First Year German	Schmidt
	German 8 Third Year German	Schoenfeld
	History 35 General History	Swisher
	Mathematic 18 Calculus	Hodgkins, H. L.
	Mathematics 54, 55 Functions	Erwin
	Philosophy 6, 8 Psychology; Logic	Metcalf
	Physics 21 Electricity	Cheney
	Pol. Sci. 23, 24 City Govt.; Cons. Law	Hill
	Spanish 2C First Year Spanish	Patison
	Spanish 4B Second Year Spanish	Doyle
6.00	Architecture 20 History of Architecture	Bibb
	English 24 English Drama	Bolwell
	French 2D First Year French	Protzman
	French 4B Second Year French	Cullom
	German 6 Second Year German	Schmidt
6.00	History 31, 32 Modern European History	Swisher
	Mathematics 12C Trig., Analytic Geometry	Hankin
	Pol. Science 2, 4 U. S. Govt.; State Govts	Hill
	Spanish 2D First Year Spanish	Patison

Tuesday and Thursday

10.15	Philosophy 29, 21 Problems; Ethics	Richardson
	Home Eco., 11, 13 Household Mangt.; Foods	Evans
	Latin 21 Quintilian, etc.	Smith
	Physics 2, 4 Laboratory Physics	Brown
11.15	Astronomy 1 Popular Astronomy	Erwin
	Commerce 33A Commercial Law	Alden
	Physics 9 Electricity	Brown
1.00	Chemistry 8 Organic Chemistry	McNeil
1.15	Chemistry 2 Laboratory Practice	Swett
to	Chemistry 3 Organic Chemistry	Swett
4.15	Chemistry 7 Qualitative Analysis	Swett
1.45	Greek 20 Plato; Aristophanes	Smith
2.45	Physics 2, 4 Laboratory Physics	Brown
4.00	Architecture 28 Painting and Sculpture	Bibb
	Classical Lit. Latin Literature	Smith
	Education 22 History of Education	Ruediger
	English 39 Composition	Bolwell
5.10	Economics 22, 23 Sociology	Kern
	Education 50 Seminar	Ruediger
	Philosophy 24 History of Philosophy	Richardson
6.00	Commerce 33B Commercial Law	Alden
	Economics 27, 26 Banking; Finance	Kern
	Philosophy 50 Seminar in Psychology	Metcalf

SCHEDULE OF CLASSES

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Course		Instructor
7.00	{ Chemistry 2 Laboratory Practice Swett to Chemistry 3 Organic Chemistry Swett 10.00 Chemistry 7 Qualitative Analysis Swett 7.30 to 9.30 } Physics 2 Laboratory Physics Brown	
Thursday and Saturday		
6.10		Chemistry 24 Organic Chemistry Swett
Monday and Wednesday		
5.10	Ethnology 51 North America Michelson	
5.10	Education 25 Secondary Education Small	
	Education 29 Story Telling Albion	
6.00	Philosophy 30, 22 Problems; Ethics Richardson	
6.10	Chemistry 26 Physical Chemistry McNeil	
7.00	Chemistry 8 Organic Chemistry McNeil	
Monday and Friday		
9.15	Economics 43, 44 Trusts; Labor Problems Kern	
11.15	Mathematics 50 Differential Equations Hodgkins	
4.00	Geology 21 Engineering Geology Resser	
5.10	Geology 1 Mineralogy Bassler	
	Geology 20 Economic Geology Bassler	
6.00	Geology 2 Geology Bassler	
7.30	{ Physics 4 Laboratory Physics Cheney to 9.30 }	
9.30		
Wednesday and Friday		
4.00	Archaeology 20A History of Art Carroll	
	Romance Lit. 2 Literature Coutinho	
5.00	Chemistry 23 Organic Chemistry Swett	
5.10	Archaeology 20B History of Art Carroll	
Tuesday		
6.10	Chemistry 6 Metallurgy McNeil	
Wednesday		
5.10	Geology 3 Geography Resser	
	Philosophy 27 Contemporary Philosophy Richardson	
6.00	Geology 6 Human Geography Resser	
Thursday		
2.45	Latin 22 Latin Composition Smith	
Saturday		
9.15	{ Education 21 Principles of Teaching Ruediger to Philosophy 25 Mental Tests Metcalf 11.15 10.15 English 61 Middle English Bolwell 11.15 History 33 Current History Swisher	
11.15		

COURSES OF INSTRUCTION PROVIDED BY THE DEPARTMENT OF ARTS AND SCIENCES

Courses of instruction are divided into three sections.

First-section courses may be taken by third or fourth year students only by permission of the Dean and the professor in charge of the subject. They may sometimes be recommended to graduate students, but are not counted toward the higher degrees. The courses in the second section are in general for advanced students, candidates for the bachelor's degree; they serve, however, with additional work, as minors for the higher degrees, provided they have not already counted toward a degree. They may be taken by students in the second year of their course only by special permission of the professor in charge. The courses in the third section are in general for graduate students only, candidates for one or other of the higher degrees. They are open to undergraduates only on the recommendation of the instructors, and no undergraduate student shall take in one year more than one course in the third section. When an announced course has not been applied for by at least three students, candidates for a degree, the instructor may withdraw the course. First-section courses are numbered 1 to 19, inclusive; second-section courses 20 to 49, inclusive; third-section courses, 50 and upwards. The number of hours, unless otherwise specified, indicate hours per week throughout the year. The unit of credit is one hour of recitation or lecture work per week for one semester; laboratory hours in chemistry and drawing count one-third unit each, in other subjects one-half unit each. Laboratories and drawing rooms will be open from 9.15 a. m. till 10 p. m., with competent assistants in charge to direct students. No student is admitted to a course unless he fulfills all the preliminary requirements for the course, or otherwise satisfies the instructor that he is prepared to pursue it. Every student must make his election of courses so as to avoid conflict between the hours appointed for recitations.

Under each course is stated the number of credits for which the course is counted toward satisfying the requirements for the undergraduate degrees of Bachelor of Arts and Bachelor of Science, or for the graduate degrees of Master of Arts and Master of Science, or for the graduate degrees in engineering.

APPLIED MATHEMATICS

Second Section. For Undergraduates and Graduates.

20. *Analytical and Applied Mechanics.*—(1) Statics: including composition, resolution and equilibrium of forces; center of gravity; moment of inertia. (2) Kinematics and Kinetics: including

rectilinear, curvilinear and rotary motion; dynamics of machinery; work and energy; friction; impact. Four hours, first half-year. Four semester-hour credits. Professor HITCHCOCK and Assistant Professor PLATT.

21. *Hydraulics*.—The theoretical principles of hydraulics: including hydrostatics, flow through orifices, over weirs, through pipes and in open channels, and the dynamic pressure of water. Two hours. Four semester-hour credits. Professor LAPHAM.

22. *Mechanics of Materials and Theory of Elasticity*.—Elastic and ultimate strength and deformation; simple, cantilever and continuous beams; shear, riveted joints, torsion, columns, resilience, combined stress, curved beams and hooks; theories of elastic limit and failure. Four hours, second half-year. Professor HITCHCOCK and Assistant Professor PLATT.

ARCHAEOLOGY AND HISTORY OF ART

Second Section. For Graduates and Undergraduates.

20. *History of Art*.—An introductory course in the history of architecture, sculpture and painting, illustrated by photographs, lantern slides and casts. 1919-20, Prehistoric, Classical and Medieval Art; 1920-21, Renaissance and Modern Art. Section A. Wed., Fri., at 4. Section B. Wed., Fri., at 5.10. Four semester-hour credits. Professor CARROLL.

Third Section. Primarily for Graduates

50. *Pro-Seminary of Art and Archaeology*. (a) Prehistoric Art and Archaeology. Six semester-hour credits. Professor CARROLL. (b) History and Appreciation of Painting. Illustrated lectures on the schools of painting from the Renaissance down to the American school. Supplemented by courses of reading and visits to galleries in Washington and neighboring cities. Six semester-hour credits. Dr. BRIGHAM.

51. *American Archaeology*.—In conjunction with the School of American Archaeology in Santa Fé. Six semester-hour credits. Professor CARROLL and Dr. HEWETT.

Use is made of the illustrative material in the National Museum, the Library of Congress and the Corcoran Gallery of Art. Students are invited to the open meetings of the Art and Archaeology League, and the Washington Society of the Archaeological Institute of America.

ARCHITECTURE

2. *Freehand Drawing*.—This course consists of drawing in charcoal from casts of simple form. Monday 1.45-3.45, 5.10-6.50; Friday 7.30-9.30. Two semester-hour credits for each period. Professor BINB.

Credit for this course may be obtained by taking work at the Corcoran Gallery of Art.

3. *Architectural Drawing and Elementary Design*.—This course includes the study of the elements of Architecture including the Five Orders, the use of india ink and water color rendering. At least nine hours per week are to be spent by the student in the drafting room. Six semester-hour credits.

Criticisms by Assistant Professor SMITH on Tuesday and Thursday, 1.45 to 4.45, and by Professor HARRIS on Tuesday, Wednesday and Friday evenings.

4. *Projections, Shades, Shadows and Perspective*.—A course in orthographic projections, shades and shadows, followed by a short course in the elements of perspective. Two periods. Four semester-hour credits.

Criticisms by Assistant Professor SMITH on Tuesday 1.45 to 4.45 and by Professor HARRIS on Wednesday evenings.

5. *Design*.—Problems of an elementary character are given to prepare the student for work in the Class B order of the Society of Beaux-Arts Architects; the rendering of these problems of this Society. At least twelve hours per week are to be spent by the student in the drafting room. Criticisms by Professor PARTRIDGE on Tuesday, Thursday and Friday evenings, and by Assistant Professor SMITH on Tuesday and Thursday afternoons. Eight semester-hour credits.

6. *Free-hand Drawing*.—An advanced course in drawing from cast and life. Two periods. Four semester-hour credits. Professor BIBB.

Credit for this course may also be obtained by taking work at the Corcoran Gallery of Art.

8. *History of Architecture*.—The course is designed to trace the development of the art in Ancient Egypt, in Greece, and in Rome, and through the Byzantine, and Mediaeval periods. Tu., Th., Sat., at 5.10. Six semester-hour credits. Professor BIBB.

Second Section. For Undergraduates and Graduates.

20. *History of Architecture*.—A study of the Architecture of the Renaissance in its relation to Ancient and to Modern Architecture. Tu., Th., Sat., at 6.00. Six semester-hour credits. Professor BIBB.

21. *Building Construction*.—Frame buildings, details of construction, interior finish, three-fourths scale and full-size details. Wed., Fri., at 6.00 and two periods in drawing room; first half-year. Four semester-hour credits. Assistant Professor SMITH.

22. *Sanitation*.—History of sanitation; pollution of water sources; modern plumbing practice; methods of sewage disposal,

septic tank, sewage disposal fields, etc. *Wed., Fri.*, at 5.10; first half-year. Two semester-hour credits. Mr. LANDVOIGT.

24. *Pen-and-Ink Rendering*.—A study of the renderings of the best pen-and-ink draftsmen, with practice in the use of the pen as a means of Architectural expression. One period. Two semester-hour credits.

Hours of criticism selected by conference with Professor PART-
RIDGE.

25. *Design*.—Plan problems, sketch problems, and archaeology problems from the Class B plan programs of the Society of Beaux-Arts Architects. At least fifteen hours a week are to be spent by the student in the drafting room. Ten semester-hour credits. Criticism by Professor PARTIDGE on Tuesday and Friday evenings.

27. *Advanced Design*.—Plan problems and sketch problems are given from the Class A programs of the Society of Beaux-Arts Architects. The latter part of the year is devoted to a thesis, the subject being selected by the student, subject to the approval of the Professor of Design. At least eighteen hours a week are to be spent by the student in the drafting room. Twelve semester-hour credits. Criticism by Professor PARTIDGE on Tuesday and Friday evenings.

28. *History of Sculpture and Painting*.—An advanced course offering a comparative study of the development of art as the expression of civilization; an outline of the lives of great artists and a critical analysis of their achievement. *Tu., Th.*, at 4.00. Four semester-hour credits. Professor BIBB.

33. *Water Color*.—A course of drawing in water color from still life and from buildings and gardens. Two periods. Four semester-hour credits. Professor BIBB.

39. *Building Construction*.—Masonry foundations, pile foundations, stone work, brick work, fire-proofing, ornamental terra cotta, plastering, specifications. *Wed., Fri.*, at 6.00 and two periods in the drawing room, second half-year. Four semester-hour credits. Assistant Professor SMITH.

40. *Water Color*.—An advanced course in water color drawing including studies from life. Two periods. Four semester-hour credits. Professor BIBB.

41. *Heating and Ventilating*.—Elementary principles of heating and ventilating; details of installation of hot air, hot water, and steam heating plants. *Wed., Fri.*, at 5.10; second half-year. Two semester-hour credits. Mr. LANDVOIGT.

43. *Office Practice*.—A course of lectures on office practice, business methods of an architect and special types of buildings by the

teaching staff and practicing architects of the District of Columbia. Two semester-hour credits.

44. *Advanced Construction*.—A course arranged especially for architectural students, embracing problems in the determination of beam sizes, girder and column design, grillage beam footings and the design of the simpler forms of trusses. Four semester-hour credits. Professor HARRIS.

ASTRONOMY

First Section. Primarily for Undergraduates.

1. *Popular Astronomy*.—A course in elementary descriptive astronomy designed to give facts of general interest without the use of higher mathematics. Recitations, lectures and papers on special topics assigned to each student. Tu., Th., at 11.15. Four semester-hour credits. Professor ERWIN.

2. *A Course in Practical Astronomy for Civil Engineering Students*.—Special attention is given to the methods of determining latitude, longitude, azimuth and time with the engineer's transit. Two hours during one term. Two semester-hour credits. Professor LAPHAM.

ASTRO-PHYSICS

Third Section. Primarily for Graduates.

54. A lecture course on the astro-physical instruments employed in modern research. Six semester-hour credits. Mr. FOWLE.

55. Some applications of Astrophysics, Geophysics, Chemical Physics and Colloidal Physics to Meteorology. Six semester-hour credits. Mr. FOWLE.

BOTANY

First Section. Primarily for Undergraduates.

1. *General Botany*.—This course aims to present in orderly fashion such a knowledge of the vegetable kingdom as everyone needs to enable him to understand plants, their mode of life and the uses to which they are put. A study of the living plant as a working mechanism is followed by a brief survey of the different kinds of plants and practice in naming the common plants. Text: Ganong, Text-book of Botany.

Section A. Tu., Th., at 9.15. Laboratory, Sat., 9.15-11.15.
Section B. Tu., Th., at 5.10. Laboratory, Sat., 5.10-6.50. Six semester-hour credits. Professor GRIGGS.

Third Section. Primarily for Graduates.

50. *Research*.—Open to qualified workers in special fields. Professor GRIGGS.

51. *Seminar*.—A weekly discussion of problems of broad botanical interest, open also to competent undergraduates.

Monday at 5.10: Two semester-hour credits. Professor GRIGGS.

NOTE.—A Second Section course may be given. Students desiring such a course should consult Professor Griggs.

CHEMISTRY

First Section. Primarily for Undergraduates.

1. *General Chemistry*.—A series of illustrated lectures, accompanied by exercises and tests on theoretical, inorganic, organic and technical chemistry. Section A. *Tu., Th., Sat.*, at 12.00. Section B. *Tu., Th., Sat.*, at 5.00. Six semester-hour credits. Professor MCNEIL.

2. *Laboratory Practice*.—A laboratory course for the study of the principles of chemistry and the method of conducting chemical experiment. Two three-hour periods. *Tu., Th.*, at 1.15 or at 7. Four semester-hour credits. Professor MCNEIL and Professor SWETT.

3. *Preparation and Study of the Properties of Chemical Substances*.—A laboratory course. Two three-hour periods. *Tu., Th.*, at 1.15 or at 7. Four semester-hour credits. Professor MCNEIL, Professor SWETT, Mr. VALAER.

4. *Assaying and Metallurgy of the Precious Metals*.—Carried on by the method used by the Government Assayers, the Laboratory being fitted up on the plan of that of the United States Mint. Twelve hours for three months. Professor MCNEIL, Professor SWETT.

5. *Principles of Analysis*.—Lecture. One hour. Two semester-hour credits. Professor MCNEIL.

6. *Metallurgy of Iron and Steel*.—A course of lectures and readings. *Tu.*, at 6.10. Two semester-hour credits. Professor MCNEIL.

7. *Qualitative Analysis*.—A brief course intended primarily for students in engineering. Two three-hour periods. *Tu., Th.*, at 1.15 or at 7. Four semester-hour credits. Professor MCNEIL, Professor SWETT, Mr. VALAER.

8. *Elementary Organic Chemistry*.—A lecture and laboratory course including both the aliphatic and aromatic series of compounds. Two lectures and three hours laboratory work per week. Section A. *Tu., Th.*, at 1.00. Section B. *Mon., Wed.*, at 7. Six semester-hour credits. Professor MCNEIL.

Second Section. For Undergraduates and Graduates.

20. *Qualitative Analysis*.—A laboratory course in the study of properties and reactions of chemical substances, and of the means

employed for their detection and identification. Three three-hour periods. Six Semester-hour credits. Professor McNEIL, Professor SWETT, Mr. VALAER.

21. *Quantitative Analysis*.—A laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Four three-hour periods. Eight semester-hour credits. Professor McNEIL, Professor SWETT, Mr. PHILLIPS.

23. *Organic Chemistry*.—Advanced course. Wed., Fri., at 5.00. Four semester-hour credits. Professor SWETT.

24. *Organic Chemistry*.—Advanced course. A continuation of Course 23. Th., Sat., at 6.10. Four semester-hour credits. Professor SWETT.

25. *Chemistry of the Carbon Compounds*.—A laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Four three-hour periods. Eight semester-hour credits. Professor McNEIL, Professor SWETT, Mr. LEPPER.

26. *Physical Chemistry*.—A lecture course designed to be an introduction to physical chemistry, and to treat of the modern theories of chemistry from the physical standpoint. Special attention is given to the ionic theory, electro-chemistry, colloids, the law of mass action, and the phase rule. Mon., and Wed., at 6.10. Four semester-hour credits. Professor McNEIL.

27. *Stereo-Chemistry*.—This course deals with the arrangement of atoms in space from a theoretical standpoint, while the student is taught how to form models by which to illustrate their arrangements. Two hours. Four semester-hour credits. Assistant Professor HILL.

28. *Biochemistry*.—A laboratory course in the chemical examination of some of the chief foodstuffs, the tissues and fluids of the body, and the products of certain organisms; also the isolation of the digestive enzymes and a study of their action *in vitro*. Three three-hour periods. Six semester-hour credits. Professor MYERS.

29. *Industrial Chemistry*.—This course deals with the manufacture of substances styled "chemicals" and with the application of chemistry to the arts and industries. Six semester-hour credits.

30. *Physical Chemistry*.—A laboratory course, designed to illustrate and supplement Chemistry 26; and especially adapted to the needs of those students who have taken, or are taking that course. Two three-hour periods. Four semester-hour credits. Assistant Professor HILL.

31. *Clinical Microscopy*.—A laboratory course in the use of the microscope and microscopical methods in chemical work. One three-hour period. Monday from 7.00 to 10.00 p. m. Two semester-hour credits. Assistant Professor HILL.

NOTE.—The number of students will be limited and preference will be given in the order of registration.

32. *Dyestuffs*.—A lecture and laboratory course for the study of the basic principles involved in the production of crudes, intermediates and finished dyes; methods of manufacture and purification; identification and separation in bulk, on textiles and from foods; theories of color; photographic developers and color filters; applications of dyestuffs commercially; market conditions and patent literature; research. Twelve hours per week; eight semester-hour credits. Miss DOYLE.

Third Section. Primarily for Graduates.

50. *Explosive Substances*.—Ten semester-hour credits. Professor CUSHMAN.

51. *Analytical Methods*.—Six semester-hour credits. Additional credits may be earned by special arrangement. Professor McNEIL.

53. *Development of the Theory of the Constitution of the Natural Silicates*.—Six semester-hour credits. Professor CLARKE.

57. *Research in Physical Chemistry*.—Six semester-hour credits. Additional credits may be earned by special arrangement. Professor McNEIL.

58. *Research. Special Problems*.—Facilities for research are available in a number of lines, especially, dyestuffs, and explosive substances. For particulars consult Professor McNEIL.

Students in Chemistry are invited to attend the meetings of the Chemical Society of Washington which are held on the second and fourth Thursdays of each month, from October to May, in the Assembly Hall of the Cosmos Club, at 8 p. m., and also the meetings of the Chemical Society of the George Washington University which is a most active and efficient student organization.

CIVIL ENGINEERING

First Section. Primarily for Undergraduates.

1. *Surveying and Mapping*.—This course includes recitations, field and drawing room work. The recitations will cover the theory, adjustment and use of instruments; land, topographic, hydrographic and geodetic surveying; latitude, longitude, time and azimuth. The field work includes the adjustment of and use of the level, and transit. The computations cover the closing of traverses,

computation of areas, contour problems and the reduction and plotting of field notes. Two recitations a week; field and drawing room work equivalent to one three-hour period a week throughout the year. Six semester-hour credits. Professor LAPHAM and Mr. MARSH.

2. *Railroad Engineering*.—This course includes recitations, field and drawing-room work. The recitations cover railroad curves and earth-work, methods of location and construction of railway lines. The field work consists of a preliminary and location survey; the laying out of circular and transition curves, etc. The computations and mapping consist of making an estimate of quantities and cost of a piece of line, making maps, profiles and a mass diagram. Two lecture-recitations and one three-hour field or drawing period a week throughout the year. Six semester-hour credits. Professor LAPHAM.

3. *Highways and Pavements*.—This course comprises the study of highway economics, location, construction and maintenance; the various methods of surfacing; the materials used and the standard tests of these materials. A study is also made of the methods of street paving, street grades, etc. Two hours a week. Four semester-hour credits. Mr. MARSH.

4. *Materials of Construction*.—A course in the study of the chemical and physical properties of: stone, brick, lime, wood, iron, steel and a few of the minor alloys. Stress is laid on the manufacture and the properties of the materials that affect their use in engineering construction. The class-room work is supplemented by laboratory tests and by inspection trips to testing laboratories and manufacturing plants. Two hours a week. Four semester-hour credits. Professor LAPHAM.

5. *Surveying Instruments*.—A two-months' course for Mechanical and Electrical Engineering students, covering the use of the compass, transit, and level. Lectures and field exercises, two hours. One semester-hour credit. Professor LAPHAM.

6. *Foundations*.—A two-months' course for Mechanical and Electrical Engineering students, covering the general principles of foundation construction and the materials used. Two hours. One semester-hour credit. Professor LAPHAM.

Second Section. For Undergraduates and Graduates.

21. *Hydraulic Engineering*.—The design and construction of water-power plants and irrigation works. Flow of rivers; rainfall and runoff; methods of development; hydraulic motors; power transmission. Irrigation plans; distributing system; water rights

and irrigation law. Two lectures and one design period. Six semester-hour credits. Professor LAPHAM.

22. *Structures*.—A course covering the determination of stresses in framed structures and their deflection by graphical and by analytical methods. The first term is devoted to beams and roof trusses; the second to bridge trusses under uniform and wheel loads. Three lectures and two design periods. Ten semester-hour credits. Mechanical engineering students take only the first term. Five semester-hour credits.

23. *Structures*.—The design of structures in timber and steel; timber and steel roof trusses; steel, mill and office buildings; girder, riveted and pin-connected bridges; bridge piers, abutments and similar structures. Three lectures and two design periods. Ten semester-hour credits.

24. *Sanitary Engineering*.—Water supply; the collection, storage and distribution of water; the design and construction of dams, reservoirs and storage tanks; construction and maintenance of water distributing systems; pumping machinery; quality of water; interpretation of water analyses; sedimentation and aeration of water; sand filtration; mechanical filtration; chemical treatment of water; the relation of water supply to infectious diseases.

Sewerage; sewerage and drainage systems; methods of disposal of sewage and trade wastes; treatment of sewage; garbage and refuse disposal. Three lectures and one design period. Eight semester-hour credits. Professor LAPHAM.

27. *Reinforced Concrete Construction*.—The theory and design of reinforced concrete slabs, beams, columns, foundations and walls; estimating reinforced concrete work; structures of plain concrete and masonry. Two recitations and one design period. Six semester-hour credits. Professor LAPHAM.

Third Section. Primarily for Graduates.

50. *Reinforced Concrete Structures*.—Theory and design; buildings, bridges, retaining walls, dams, tanks, etc. One lecture and two design periods. Six semester-hour credits.

51. *Advanced Steel Structures*.—Theory and design of suspension, cantilever, moveable and arch bridges. One lecture and two design periods. Six semester-hour credits.

53. *Railroad Engineering*.—An advanced course in railroad location construction and maintenance of way. It must be preceded by Civil Engineering course 2. Six semester-hour credits.

54. *Water and Sewage Purifications*.—An advanced course dealing with the practical application of the principles and methods

involved in the purification of water supplies and in the disposal and treatment of sewage. One lecture and two design periods. Six semester-hour credits.

CLASSICAL LANGUAGES AND LITERATURES

Greek

First Section. Primarily for Undergraduates.

A. *Elementary Course*.—For students who have not taken Greek before matriculating. It aims to cover as much as possible of the entrance requirement in Greek, with the exception of Homer. *Mon., Wed., Fri.*, at 10.15. Six semester-hour credits. Professor SMITH.

B. *Homer: Iliad I-IV*.—For students who have taken course A and desire to prepare themselves to enter Course I. *Tu., Th.*, at 9.15. Four semester-hour credits. Not given in 1921-22.

1. Herodotus (selections); Lysias (selected orations); Euripides (*Alcestitis*); Greek prose composition. *Mon., Wed., Fri.*, at 2.45. Six semester-hour credits. Professor SMITH.

2. Xenophon (*Memorabilia*); Thucydides (*Book VII*); Sophocles (*Antigone*). *Mon., Wed., Fri.*, at 1.15. Six semester-hour credits. Professor SMITH.

Second Section. For Undergraduates and Graduates

20. Plato (selections, including the *Apology* and *Crito*); Aristophanes (*Clouds* or *Frogs*). *Tu., Th.*, at 1.45. Four semester-hour credits. Professor SMITH.

21. Demosthenes (selected orations); Lucian (selected dialogues); Homer (selections). *Tu., Th.*, at 1.45. Four semester-hour credits. Not given in 1921-22.

Latin

First Section. Primarily for Undergraduates

B. *Cicero's Orations and Vergil's Aeneid*.—For students who have satisfied the admission requirements in elementary Latin but have not done the work specified under the advanced requirements. It will include a thorough study of several of the *Orations* and of three or four books of the *Aeneid*, supplemented by private reading, and some practice in the writing of Latin. *Tu., Th., Sat.*, at 11.15. Six semester-hour credits. Professor SMITH.

1. Livy (*Book I or XXI*); Cicero (*De Senectute*); Horace (*Odes and Epodes*); Latin prose composition. Open to students who have satisfied the admission requirements in elementary and advanced Latin, or have satisfactorily completed course B. *Mon., Wed., Fri.*, at 1.45. Six semester-hour credits. Professor SMITH.

2. Cicero and Pliny (selected Letters); Horace (Satires and Epistles); Martial (selections). *Mon., Wed., Fri.*, at 4.00. Six semester-hour credits. Professor SMITH.

Second Section. For Undergraduates and Graduates

20. Tacitus (selections); Terence (Phormio); Plautus (Captivi). *Tu., Th.*, at 10.15. Four semester-hour credits. Not given in 1921-22.

21. Quintilian, Book X, and Horace, *Ars Poetica*; Catullus, Tibullus and Propertius. *Tu., Th.*, at 10.15. Four semester-hour credits. Professor SMITH.

22. *Advanced Latin Composition and Reading at Sight.*—Practice in Latin expression and style. *Th.*, at 2.45. Two semester-hour credits. Professor SMITH.

Third Section. Primarily for Graduates.

The work in this section is designed to afford discipline in the methods of philological criticism, with special reference to the interpretation of classical authors, and will include opportunities for original research on the part of competent students. In order to make the work as helpful as possible for those who expect to become teachers, the center of study each year will be one of the authors usually taught in the secondary schools. With the approval of the instructor, properly qualified Seniors may be admitted to these courses. The authors selected are as follows:

50. *Vergil, and Roman Epic Poetry.*—Two hours. six semester-hour credits. Not given in 1921-22.

51. *Caesar, and the Roman Historians.*—Two hours. Six semester-hour credits. Not given in 1921-22.

52. *Cicero, and Roman Oratory.*—Two hours. Six semester-hour credits. Professor SMITH.

Classical Literature

First Section. Primarily for Undergraduates.

1. *General Survey of Classical Greek Literature (in English).*—This course is designed to give an outline of the development of the different departments of literature in ancient Greece and will include selected readings, in translation, from the most important authors. Being primarily intended for students who are not taking Greek or Latin, it does not require a knowledge of those languages, and is open to all undergraduates as an elective. *Tu., Th.*, at 4. Four semester-hour credits. Not given in 1921-22.

2. *General Survey of Latin Literature (in English).*—This course is similar in purpose and method to Course 1, and will alternate with it. The subject of study will be the work of the most important ancient Roman authors. *Tu., Th.*, at 4. Four semester-hour credits. Professor SMITH.

COMMERCE

Second Section. For Undergraduates and Graduates.

20. *Principles of Business.*—An introductory course in Business Economics and preparatory to the courses in Corporation, Finance, Transportation, Business Administration, etc. The following topics indicate the scope of the course, viz: Financing and management of business enterprises; purchasing; advertising; selling; ocean traffic and freight trade; credit; forecasting business conditions; banking; exchange; financial statements. Not given in 1921-22. Three semester-hour credits. Assistant Professor KOCHENDERFER.

22. *The Principles of Commercial Organization and Foreign Trade.*—This course deals with the problems of marketing raw and finished products, and commercial analysis. The course affords practical preparation for expert work in foreign trade. Organization of export merchants, export agents and commission houses; advertising and trade promotion work. Tu., Th., Sat., at 5.10. Six semester-hour credits. Assistant Professor KOCHENDERFER.

33. *Commercial and Maritime Law.*—A study of the principles of the law relating to commercial transactions, especially contracts, sales, bailments, agency, partnership, negotiable instruments, and common carriers, with some study of Admiralty law. Section A, Tu., Th., at 11.15; Section B., Tu., Th., at 6.00. Four semester-hour credits. Assistant Professor ALDEN.

36. *Commercial and Industrial Geography.*—During the first term, a general survey is made of the products, industries, and commerce of the United States and of the principal foreign countries. This survey is supplemented during the second term by a detailed study of agriculture, mining, and manufactures, throughout the world, but with special reference to the United States; separate treatment of each important crop and branch of manufactures, with inquiry into the causes of the localization of industry, Mon., Wed., Fri., at 6.00. Six semester-hour credits. Assistant Professor KOCHENDERFER.

40. *Industrial and Commercial History of the United States.*—Business aspects of early American colonization; the westward movement and the public lands; the development of internal improvements and railways; tariff history and policy. Growth of industry, agriculture, commerce; labor and capital; industrial and commercial problems of today. Mon., Wed., Fri., at 5.10. First half-year. Three semester-hour credits. Assistant Professor KOCHENDERFER.

42. *European Industrial Evolution and World Politics.*—A somewhat detailed study of the awakening of Japan, the problem of China, the interplay of rival imperial ambitions in the Far East,

the causes of the World War, the Versailles Peace Conference and the international settlement made thereby. The introductory portion of the course will cover as intensively as time will permit agrarian problems, colonial expansion, and commercial policies, the development of industry, and transportation. *Mon., Wed., Fri.*, at 5.10. Second half-year. Three semester-year credits. Assistant Professor KOCHENDERFER.

45. *History of Commerce.*—The rise and progress of commerce from antiquity to modern times, with particular emphasis on the effects of commerce on civilization and the relations between commercial and political development. Not given in 1921-22.

47. *Transportation.*—Development and control of transportation in the United States and Europe. Railroad construction, competition, combination, regulation, rates discrimination. Government ownership. Ocean carriage; subsidies; combination; rebates; ports and terminals; marine insurance. The U. S. Shipping Board, Railroad Administration and Emergency Fleet Corporation activities. Not given in 1921-22. Second half-year. Three semester-hour credits. Assistant Professor KOCHENDERFER.

48. *Relation of Government to Property and Industry.*—Incorporation and regulation of companies, common law and monopolies, the anti-trust acts and their results. Public Utilities commissions and boards; regulations of security issues, etc. National incorporation and other methods of proposed regulation examined. Reconstruction problems. The tendency toward federal control of commerce and industry. Police power regulations, etc. Not given in 1921-22.

Third Section. Primarily for Graduates.

52. *Corporation Finance and International Trade Seminar.*—For qualified advanced students and graduates. Special opportunities will be offered students desiring to acquaint themselves with the best literature and do intensive work in the preparation of theses. Hours to be arranged. Four semester-hour credits. Assistant Professor KOCHENDERFER.

ECONOMICS AND SOCIOLOGY

First Section. Primarily for Undergraduates.

1. *General Economics.*—An outline course in the principles of political economy devoted mainly to the study of production and exchange under present-day conditions, followed by a study of the problems of rent, interest, wages, and profits, and including an examination of competition, private property, and economic programs. *Mon., Wed., Fri.*, at 11.15. Six semester-hour credits. Professor KERN.

2. Parallel with Course 1. *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Professor KERN.

Second Section. For Undergraduates and Graduates.

22. *General Sociology*.—An outline course in the principles of sociology devoted mainly to an examination of the organization of society and its ideals, with a study of the social systems, their functions, efficiencies and programs for their development. First half-year. *Tu., Th.*, at 5.10. Two semester-hour credits. Professor KERN.

23. *Modern Social Problems*.—A further analysis of modern social conditions with special studies of current questions in sociology. Prerequisite, the course in general sociology. Two hours, second half-year. *Tu., Th.*, at 5.10. Two semester-hour credits. Professor KERN.

24. *The History of Economic Thought*.—A review of the development of economics as a science from the earliest times to the present. Lectures and library readings. Two hours, first half-year. Given in alternate years. Not given in 1921-22. Professor KERN.

26. *Public Finance*.—A course in the development of budgetary and fiscal methods and principles. The history and tendencies of public expenditure under the Federal and State Governments. The theory of taxation; administration of public domains, and industries; public debts. Second half-year. *Tu., Th.*, at 6.00. Two semester-hour credits. Professor KERN.

27. *Money and Banking*.—The history and theory of money; the production of the precious metals; the theory of prices and measurement of price fluctuations; monetary systems; the relation of the Treasury system to our money supply; the theory of credit and banking; the national bank system of the United States and the banking system of foreign nations. First half-year. *Tu., Th.*, at 6.00. Two semester-hour credits. Professor KERN.

28. *Economic Problems*.—An advanced course devoted to a more thorough study of the problems developed in the general course in economics. Research and preparation of papers to be presented to the class for discussion and criticism. Credit for course 1, General Economics, is requisite for admission to this course. Not given in 1921-22. Professor KERN.

43. *Combinations, Trusts*.—A discussion of the conditions which have favored the growth of large business combinations, the nature of their organization, their influence upon prices and productive efficiency, and the regulation and supervision of them. First half-year. *Mon., Fri.*, at 9.15. Two semester-hour credits. Professor KERN.

44. *Labor Problems*.—A brief sketch of the labor movement in the United States and of the aims and methods of trade unions, followed by a discussion of such problems as: child labor; dangerous occupations; workingmen's insurance against sickness, old age, accident, and unemployment; strikes and industrial conflicts; conciliation and arbitration; collective bargaining. Second half-year, *Mon., Fri.*, at 9.15. Two semester-hour credits. Professor KERN.

49. *Statistics*.—The elements of statistical method, including gathering material, collecting data, defining the problem, tabulation, diagrams, graphs, frequency tables, types including mean, median, mode, measure of dispersion, use of quartiles, average deviation, standard deviation, coefficient of variability, skewness, coefficient of correlation, probable error, price indices, ratio of variation, moving averages, and general application of statistical methods to business, economics, education, administration, sociology, government and biology. *Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Dr. PHILLIPS.

Third Section. Primarily for Graduates.

51. *Seminar in Sociology*.—A research course for the detailed investigation of special sociological problems, suitable for those who are engaged in original investigation or in the preparation of a thesis. Hours to be arranged. Six semester-hour credits. Professor KERN.

Note.—Additional course in Economics may be given in 1921-22, and there may be resulting changes in class hours. Announcements of the changes will be made in September.

EDUCATION

Second Section. For Undergraduates and Graduates.

20a. *Principles of Teaching*.—A comprehensive course in the principles underlying the teaching process in its intellectual, emotional and motor phases. Special attention is given to making teaching concrete and meaningful. First half-year. *Mon., Wed., Fri.*, at 9.15. Three semester-hour credits. Professor RUEDIGER.

20b. *Principles of Education*.—A comprehensive course in the bases, aims, values and essential content of education as revealed by biological, psychological, sociological and ethical principles. Second half-year. *Mon., Wed., Fri.*, at 9.15. Three semester-hour credits. Professor RUEDIGER.

21a. *Principles of Teaching*.—A brief course in the psychological and logical principles underlying the teaching process. First half-

year. *Sat.*, at 9.15-11.15. Two semester-hour credits. Professor RUEDIGER.

21b. *Principles of Education*.—A brief course in the bases, aims, values and essential content of education as revealed by biological, psychological, sociological and ethical principles. Second half-year. *Sat.*, at 9.15-11.15. Two semester-hour credits. Professor RUEDIGER.

(Courses 20 and 21 should be preceded or accompanied by general psychology. Course 21 is designed especially for teachers in service.)

22. *History of Education*.—A general course in the historical development of educational theory and practice. *Tu., Th.*, at 4.00. Four semester-hour credits. Professor RUEDIGER.

24. *School Sanitation and Hygiene*.—A survey of the relations of education and health, including: The function of the school in promoting health; physical examination of children; medical inspection; physical education; diseases and defects incident to school life; the organization of instruction as related to fatigue; defective children; school-house construction and sanitation. Lectures, reference work, and reports. Not given in 1921-22. Two semester-hour credits. Dr. SMALL.

25. *Secondary Education*.—A study of the administration and pedagogical aspects of the Junior and Senior high school. *Mon., Wed.*, at 5.10. Four semester-hour credits. Dr. SMALL.

27. *School Administration*.—The public school system: Its development; economic and political relations; organization of administration, financial and educational; problems of administration. Lectures, assigned reading, and reports. Not given in 1921-22. Dr. SMALL.

28. *Experimental Education*.—A laboratory course on processes of learning, transfer of practice, association, memory, etc. Special emphasis is laid upon practical work with the Binet and other mental tests. (Not given in 1921-22. See Philosophy 25.) Three semester-hour credits. Mrs. SYMONDS.

29. *Educational Story Telling*.—Study of type stories, adaptation of the stories, practical story telling. It is the purpose of the course to develop a basis for the selection and presentation of suitable children's literature, taking into consideration the various stages of the child's development. Lectures, required reading and reports. *Mon., Wed.*, at 5.10. Four semester-hour credits. Mrs. ALBION.

30. *Story Telling and Children's Literature*.—Study of Epics—Iliad, Odyssey, and Kalevalla. Re-telling, possible dramatization.

Part of the course will be given to a discussion of reading and

reading books with a view to supplementing with stories and units of literature. It will be the purpose to work toward a solution of the problem of developing in the child a higher appreciation of the best in literature and a real love of books through his school reading. The course will extend and supplement Course 29 but will be open to all upper class students. Not given in 1921-22. Four semester-hour credits. Mrs. ALIBION.

34. *Observation*.—Observation of experienced teachers, under guidance, followed by discussion. The course should normally be taken in the junior year. Two semester-hour credits. Professor RUEDIGER and Miss LOYALL.

35. *Practice Teaching*.—Teaching under supervision and criticism. The course should normally be taken in the senior year. Two semester-hour credits. Professor RUEDIGER.

Third Section. Primarily for Graduates.

50. *Seminar in Education*.—Topic for 1921-22. Elementary education. Bank books and current periodical literature in this field will be reviewed, and a paper embodying constructive scholarship will be required of each member of the class. Open to qualified undergraduates. Tu., Th., at 5.10. Six semester-hour credits. Professor RUEDIGER.

ELECTRICAL ENGINEERING

1. *Engineering Electricity*.—Study of direct circuits, electro-magnetism, electro-magnetic induction, the direct current dynamo, direct current measurements, three phase alternating currents, transmission lines, synchronous generators and motors, synchronous converters, rectifiers, transformers, induction motors and other types of alternating current motors. Hudson's "Engineering Electricity." Three hours. Six semester-hour credits. Mr. AMES.

2. *Direct Current Theory; Dynamo Machinery and Alternating Currents*.—During the first half of the year the elements of electricity are studied, together with the principles involved in the construction and operation of direct current dynamos and motors. After a foundation of the elements of electricity has been established, direct current machines are examined, resulting in the discussion of the different forms of armatures, of their windings, cores, commutator, the various fields, the methods of arranging the windings for different purposes; the shape and materials of magnetic circuits; and the selection of types suited for performances of specific duties.

During the second half of the year, direct current machines are further studied, illustrating the characteristic curves and efficiencies of the different types. An introduction to the character-

istics of alternating currents are taken up, together with the solutions of simple and complex circuits, involving complex numbers and vectors. Numerous problems are assigned throughout the course. Prerequisite: Physics 1. Franklin and Esty, "Elements of Electrical Engineering." Three hours. Six semester-hour credits. Mr. AMES.

4. *Electrical Laboratory*.—A laboratory course for Juniors, involving experiments on measurements and tests of direct current machines. Ample instruction is given so that the student may gain a clear knowledge of the object of the experiment and so that no important point may be overlooked. Complete and concise reports describing each experiment and showing the results of the various tests are required from all students. Swenson & Frankenfield "Testing of Electro-Magnetic Machinery." Two three-hour periods, first half-year. Two semester-hour credits. Mr. AMES.

5. *Electrical Laboratory*.—A continuation of E. E. 4, in which further tests on direct current machines are made, involving a study of the performance characteristics of the different types. Prerequisite: E. E. 4. Two three-hour periods, second half-year. Two semester-hour credits. Mr. AMES.

Second Section. For Undergraduates and Graduates.

21. *Alternating Current Theory and Machinery*.—A continuation of E. E. 2, covering the principles of simple and polyphase currents, including study of alternators, synchronous converters, induction motors, synchronous motors, transformers, etc. Jackson's "Alternating Currents and Alternating Current Machinery." Four hours. Eight semester-hour credits. Mr. AMES.

22. *Electrical Distribution*.—A course for Seniors in Electrical Engineering, covering the whole field of distribution of electricity for light and power. Text-book: Ferguson's Elements of Electrical Transmission. Two hours, first half-year. Two semester-hour credits. Mr. FECHT.

23. *Electrical Applications*.—A course for Seniors in Electrical Engineering, covering the more important applications of electricity, such as electric generating stations, motive power, electro-metallurgy, etc., Two hours, second half-year. Two semester-hour credits. Mr. FECHT.

24. *Advanced Electrical Laboratory*.—Determination of impedance, inductance, capacitance. Measurement of power in alternating current circuits, test and calibration of watt hour meters. Regulation and efficiency tests of alternators and transformers. Tests of synchronous motors and converters, induction and repulsion motors. Swenson & Frankenfield "Testing of Electro-Magnetic

Machinery." Vol. II (alternating currents.) Two three-hour periods. Four semester-hour credits. Mr. AMES.

27. *Electric Railways*.—A course for Seniors in Electrical Engineering covering the theory and practice of modern, direct and alternating current railways. Buck's "The Electric Railway." Two hours, second half-year. Two semester-hour credits. Mr. AMES.

28. *Telephones and Telegraphs*.—Study of magneto, common battery, and automatic telephones; land and submarine telegraph; including receivers, transmitters, switchboards, lines and circuits. An introduction to theory of wireless telegraph and telephone. Two hours. Four semester-hour credits. Mr. AMES.

29. *Electric Illumination*.—A study of the underlying principles of scientific illumination, exterior and interior. Color combinations, control, absorption, and reflection are considered. Detail study is also made of different types of lamps, shades, arrangement of light sources, effect of walls, etc. Two hours, second half-year. Two semester-hour credits. Mr. AMES.

30. *Design*.—A course covering the design of simple electrical apparatus, such as switches, circuit breakers, and switchboards. Dynamo design is taken up and various types studied. Layouts of central stations and substations with necessary electrical equipment are made. Two hours, second term. Two semester-hour credits. Mr. AMES.

Third Section. Primarily for Graduates.

50. *Radio-electricity*.—A mathematical treatment of the fundamental principles with an exposition of their application to present day practice. Problems based on the methods used and the apparatus employed in the generation of oscillatory currents; the reception of signals; and other features developed in the utilization of this method of transmission will be discussed. Six semester-hour credit, as a Minor; ten semester-hour credits, as a Major. Professor COHEN.

ENGLISH

First Section. Primarily for Undergraduates.

1. *English Rhetoric*.—A study of the principles of self-expression through language with practice in composition. Tu., Th., Sat., at 10.15. Six semester-hour credits. Professor WILBUR.

2. *English Rhetoric*.—Parallel with Course 1. Mon., Wed., Fri., at 5.10. Six semester-hour credits. Professor WILBUR.

NOTE.—Credit for Course 1 or 2 is requisite for admission to any other course in English except 5 and 6.

5. *Survey of English Literature*.—Mon., Wed., Fri., at 9.15. Six semester-hour credits. Assistant Professor BOLWELL.

6. *Survey of English Literature*.—Parallel with Course 5. *Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Assistant Professor BOLWELL.

Second Section. For Undergraduates and Graduates.

22. *Shakespeare*.—The first eighteen plays in chronological sequence through King Henry the Fifth. (The Temple edition of Shakespeare is recommended.) *Mon., Wed., Fri.*, at 10.15. Six semester-hour credits. Professor WILBUR.

24. *English Drama to 1642*.—From the beginning, exclusive of Shakespeare, to the closing of the theaters. *Tu., Th., Sat.*, at 6.00. Six semester-hour credits. Assistant Professor BOLWELL.

25. *English Drama from 1642*.—*Tu., Th., Sat.*, at 11.15. Six semester-hour credits. Professor CROISSANT.

26. *Nineteenth Century English Poetry*.—Six semester-hour credits. Not given in 1921-22. Professor CROISSANT.

27. *Nineteenth Century English Prose*.—*Tu., Th., Sat.*, at 10.15. Six semester-hour credits. Professor CROISSANT.

29. *American Literature*.—*Mon., Wed., Fri.*, at 4.00. Six semester-hour credits. Professor CROISSANT.

30. *Types of Literature*.—Lectures on the principal types of literature with collateral reading. *Mon., Wed., Fri.*, at 6.00. Three semester-hour credits. Professor CROISSANT.

31. *Journalism*.—The fundamentals of newspaper writing. *Mon., Wed., Fri.*, at 5.10. Six semester-hour credits. Mr. CHACE.

36. *The Development of the Novel*.—The evolution of prose fiction from medieval romance to the modern novel. Six semester-hour credits. Not given in 1921-22. Assistant Professor BOLWELL.

39. *Advanced Composition*.—The practice and criticism of modern literary forms. *Tu., Th.*, at 4.00. Four semester-hour credits. Assistant Professor BOLWELL.

Third Section. Primarily for Graduates.

51. *English Seminar*.—Problems for individual research. Six semester-hour credits.

52. *Shakespeare*. All the plays.—Six semester-hour credits. Not given in 1921-22. Professor WILBUR.

53. *Browning and Tennyson*.—First semester, "The Ring and the Book." Second semester, "The Idylls of the King." *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Professor WILBUR.

56. *English Comedy*.—Six semester-hour credits. Not given in 1921-22. Professor CROISSANT.

57. *English and American Drama of the Nineteenth Century*.—*Mon., Wed., Fri.*, at 5.10. Six semester-hour credits. Professor CROISSANT.

60. *Anglo-Saxon Grammar and Literature*.—First semester, grammar and prose readings; second semester, *Beowulf* and other poetry. Six semester-hour credits. Not given in 1921-22. Assistant Professor BOLWELL.

61. *Middle English and Chaucer*.—First semester, 12th and 13th century literature; second semester, Chaucer and his contemporaries. *Saturday seminar*, at 10.15. Six semester-hour credits. Given 1921-22. Assistant Professor BOLWELL.

62. *Literature of Fifteenth and Sixteenth Centuries*.—First semester, following of Chaucer and the Renaissance; second semester, Elizabethan literature. Six semester-hour credits. Given 1922-23. Assistant Professor BOLWELL.

ETHNOLOGY

Third Section. Primarily for Graduates.

50. *General Introduction to Ethnology*.—A general course embracing man's place in nature; ancient man; the elements of physical anthropology; the application of statistical methods to physical anthropology; classification of living races; sociology, religious ideas, ethical ideas, and languages of primitive peoples; the beginnings of literature and art; linguistic survey of the world; ethnological survey of the world; discussion of the problems of independent origins versus diffusion: the classical British, Graebnerian, and American schools. Lectures and collateral readings. *Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Professor MICHELSON.

51. *Outlines of North-American Ethnology*.—As full a description of the aborigines of North America as the time will permit. Lectures and assigned readings. *Mon., Wed.*, at 5.10. For semester-hour credits. Professor MICHELSON.

52. *American Indian Languages*.—This is an introductory course, and presupposes only a moderate amount of previous linguistic training. After a brief introduction to the subject, two stocks will be studied, one in each half-year. *Two hours a week*. Four semester-hour credits. Professor MICHELSON.

53. *American Indian Languages* (second course).—This is an advanced course, and members must have taken course 52, unless they have done an equivalent elsewhere. *One hour a week*. Two semester-hour credits. Not given in 1921-22. Professor MICHELSON.

54. *Seminar in Ethnology*.—Competent students will be assigned topics, and the results discussed at a weekly meeting. Four semester-hour credits. This course may be taken four times,

counting each time. The subject-matter will be changed yearly. This will be in accordance with the needs of individual students. Professor MICHELSON.

FRENCH

See Romance Languages.

GEOLOGY AND MINERALOGY

First Section. Primarily for Undergraduates.

1. *Mineralogy*.—Crystallographic, descriptive, and determinative mineralogy. This course is designed with especial reference to minerals as rock constituents or segregated as ore deposits. It includes, therefore, a discussion of not merely the crystallographic and theoretical, but the practical side of the subjects as well. Whenever possible, it should be considered as introductory to the courses in either systematic or economic geology. *Mon., Fri.*, at 5.10. Four semester-hour credits. Professor BASSLER and Dr. RESSER.

2. *Geology*.—Systematic geology; dynamical, structural, and stratigraphical. The course is designed to form a part of a general-culture course or a preliminary course for those intending to make a specialty of geology. It includes lectures, recitations, laboratory and field work so far as hours will permit. Paleontology is treated as a branch of geology, having especial reference to stratigraphy and correlation. Text book: Cleland's *Geology*. *Mon., Fri.*, at 6.00. Four semester-hour credits. Professor BASSLER and Dr. RESSER.

3. *General Geography*.—This course presents the principles of geography by a study of the phenomena of the earth as a whole, the interrelations of these phenomena and their influence upon human affairs. It consists of two parts: first, a study of the general geographic principles; and second, a brief survey of several regions and countries for the application of these principles. It is a general culture lecture course illustrated by charts and lantern slides. No course is prerequisite. *Wed.*, at 5.10. Two semester-hour credits. Dr. RESSER.

4. *Physiographic Geography*.—A general culture, illustrated, lecture course treating of the physical phases of geography, the earth's surface, atmosphere, and the distribution of life. *Wed.*, at 6.00. Two semester-hour credits. Not given in 1921-22.

6. *Human Geography*.—A general culture course in the newer treatment of geography. Human geography has as its object the study of the relationships between human activity and the phenomena of physical geography. It is of particular value in broad-

ening one's ideas and in the study of such human subjects as History and Sociology. *Wed.*, at 6.00. Two semester-hour credits. Dr. RESSER.

Part A given 1921-1922. Part B, a continuation, given 1922-23.

Second Section. For Undergraduates and Graduates.

20. *Economic Geology*.—[Geology 1 and 2 and Chemistry 1 are prerequisite for this course.] The course covers the subjects comprised under: (1) Mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (2) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, antimony, etc.; and (3) the non-metallic minerals as the coals and hydrocarbon compounds; salts and minerals used in chemical manufactures; abrasive, refractory, and fictile materials, pigments, gems, ornamental stones, building stones, lines, cements, and mineral waters. Textbook: Ries' *Economic Geology*. *Mon., Fri.*, at 5.10. Given in alternate years. Four semester-hour credits. Professor BASSLER and Dr. RESSER.

21. *Engineering Geology*.—This course is intended primarily for civil engineers and others interested in applied geology. The work covers the general principles of geology with special emphasis upon those relating to engineering problems. The structure of rocks relative to building operations, the controlling factors of water supply, water purification and similar problems are discussed in detail. Text-book, *Engineering Geology* by Ries and Watson. *Mon., Fri.*, at 4.20. Four semester-hour credits. Dr. RESSER.

22. *Paleontology*.—A course in lecture and laboratory work on the biological and geological relations of the more important types of animals and plants, with especial reference to their value in stratigraphic geology. Six semester-hour credits. Professor BASSLER.

Third Section. Primarily for Graduates.

50. (A) *Advanced Geology*; (B) *Mineralogy*; (C) *Paleontology*.—Advanced courses in these subjects may be arranged for competent students. Six semester-hour credits. Professor BASSLER.

51. *Advanced Geography*.—Advanced courses may be arranged in this subject for qualified students. Six semester-hour credits. Dr. RESSER.

GERMANIC LANGUAGES AND LITERATURE

First Section. Primarily for Undergraduates.

1. *Elementary*.—The essentials of German grammar; translation of easy prose and poetry; beginning conversation; composition and dictation. This course is open to beginners, and the work done is equivalent to that of a two year's course in high schools and acad-

emies of good standing. *Tu., Th., Sat.*, at 11.15. Six semester-hour credits. Professor SCHOENFELD.

2. Parallel with course 1. *Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Professor SCHMIDT.

3. Selected texts from the best contemporary authors will be read and one or more of the German classics carefully studied. The work in grammar and composition done in elementary German will be continued, with special emphasis on syntax, word-formation, and the relationship of German and English; conversation continued. This course is equivalent to the advanced German of the admission requirements, and it is open only to students who have passed Course 1 or 2, or have satisfied the admission requirement in elementary German. *Mon., Wed., Fri.*, at 11.15. Six semester-hour credits. Professor SCHOENFELD.

4. *Parallel with Course 3.*—Contemporary German is read during the first half-year and classical during the second half-year. *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Professor SCHMIDT.

6. *Scientific and Technical German.*—Designed primarily for students in the scientific and engineering courses. This course may be taken by students who have passed course 1 or 2, or who have satisfied the admission requirement in elementary German. *Tu., Th., Sat.*, at 6.00. Six semester-hour credits. Professor SCHMIDT.

7. Advanced course in German syntax; principal difficulties of the language; idioms, synonyms; translations of English prose into German; essays; selected advanced prose; classical and historical reading and literature; advanced science. Open to students who have passed Course 3 or have satisfied the admission requirement in advanced German. *Mon., Wed., Fri.*, at 1.45. Six semester-hour credits. Professor SCHOENFELD.

8. Parallel with Course 7, with special reference to advanced students both in the historic-political and the scientific departments. *Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Professor SCHOENFELD.

Second Section. For Undergraduates and Graduates.

20. *Outline of the History of German Literature and Civilization from the Teutonic Origins to the Renaissance and Reformation*, with special reference to the emerging of the Germanic, Romance, and Slavic races. Anthology of the early literary monuments to the Minnesingers.—Lectures, extensive readings of the classics of the first period of bloom; advanced practice in writings, essays. *Mon., Wed., Fri.*, at 10.15. Six semester-hour credits. Professor SCHOENFELD.

21. *German Literature of the Second Classic Period at Its*

Zenith.—Lessing's Life and Work; Goethe's work in the Natural Sciences; Schiller's drama at its zenith; Goethe's and Winckelmann's influence on German art; with special reference to the modern drama; Goethe's Faust, as a special critical and philosophical study; classical ballad and lyric poetry; renaissance of the German folkslied in the eighteenth and nineteenth centuries. *Mon., Wed., Fri.*, at 5.10. Not given in 1921-22. Six semester-hour credits. Professor SCHOENFELD.

22. *The Currents of German Literature from the Beginning of the Nineteenth Century until 1870.*—Romanticism, its social and political aspects; Modern German Drama, with special emphasis on Kleist, Grillparzer, Hebbel; Lyrics and Ballads; Uhland and Heine. *Mon., Wed., Fri.*, at 5.10. Six semester-hour credits. Professor SCHOENFELD.

Third Section. Primarily for Graduates.

50. *Seminar in the History of Middle High German Literature*, with special reference to the Epic and Lyrical Poetry in the Twelfth and Thirteenth Centuries. Introduction to scientific methods of historical and literary research in the Nibelungenlied and the Gudrunsaaga. Six semester-hour credits. Professor SCHOENFELD.

51. *Gothic.*—Introduction to comparative Indo-European Grammar. Six semester-hour credits. Professor SCHMIDT.

52. *Old High German.*—The development of the German language. Six semester-hour credits. Professor SCHMIDT.

Only one of the foregoing two courses (51, 52) is given in any one year.

For notice of the Richard Heinzel Germanic Library, see page 11.

GREEK

See Classical Language.

HISTORY

First Section. Primarily for Undergraduates.

1. *Mediaeval History.*—A history of the settlement of the Germanic tribes in the territory of the Empire, with a study of feudal institutions, extending through the movements of the Crusades; texts, with assigned readings. First half-year. *Mon., Wed., Fri.*, at 2.45. Three semester-hour credits. Professor SWISHER.

2. *Mediaeval History.*—A history of the evolution of national government extending through the periods of the Renaissance and the Protesant Revolution; texts and assigned readings. Second half-year. Three semester-hour credits. *Mon., Wed., Fri.*, at 2.45. Professor SWISHER.

3. *Modern European History.*—A study of the European States

under the new conditions resulting from the discovery of America and the opening of the oriental trade routes, extending through the period of the French Revolution; texts, lectures and collateral readings. First half-year. *Mon., Wed., Fri.*, at 3.45. Three semester-hour credits. PROFESSOR SWISHER.

4. A continuation of the preceding through the revolutionary movements of the nineteenth century with a more detailed study of recent issues; texts, lectures and collateral readings. Second half-year. *Mon., Wed., Fri.*, at 3.45. Three semester-hour credits. PROFESSOR SWISHER.

5. *Ancient History*.—A study of the history of the ancient Oriental peoples, and of Greece. First half-year. *Tues., Thu., Sat.*, at 9.15. Three semester-hour credits. Assistant Professor KAYSER.

6. *Ancient History*.—A study of Roman history from the beginnings to the fall of the Western Empire. Second half-year. *Tues., Thu., Sat.*, at 9.15. Three Semester-hour credits. Assistant Professor KAYSER.

7. *General European History*.—First Semester—Mediaeval Europe from the Fall of the Western Empire through the Renaissance. Second Semester—Modern Europe from the Renaissance to the present time. *Mon., Wed., Fri.*, at 9.15. Six semester-hour credits. Assistant Professor KAYSER.

9. *American History*.—A general introductory course in American history. Text, lectures, assigned reading, and reports. *Tu., Th., Sat.*, at 11.15. Six semester-hour credits. Assistant Professor CHURCHILL.

Second Section. For Undergraduates and Graduates.

21. *Ancient History*.—A study of the history of the ancient Oriental peoples, and of Greece and Rome; with collateral readings in the translated texts of Herodotus, Plutarch, Thucydides, Tacitus and others. *Tu., Th., Sat.*, at 9.15. Six semester-hour credits. Not given in 1921-22.

22. *American History*.—The United States, 1783-1860. Text, lectures and collateral reading. Six semester-hour credits. Not given in 1921-22.

23. *American History*.—The Colonial Period to 1783. Second half-year. *Mon., Wed., Fri.*, at 2.45. Three semester-hour credits. Assistant Professor CHURCHILL.

24. *American History*.—Recent American history since 1860. Second half-year. Three semester-hour credits. Not given in 1921-22.

25. *English History*.—A general course in English history with special attention to constitutional and political development.

Texts, lectures and collateral reading. Section A. *Tu., Th., Sat.*, at 10.15. Section B. *Mon., Wed., Fri.*, at 5.10. Six semester-hour credits. Assistant Professor CHURCHILL.

26. *American History*.—The History of the West. Lectures, reports, collateral reading, and special reports on topics chosen under the advice of the instructor. A general acquaintance with American History is presupposed. *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Assistant Professor CHURCHILL.

27. *Latin-American History*.—The history and present conditions of the principal countries of Latin America. Lectures, texts and reports on collateral reading. First half-year. *Mon., Wed., Fri.*, at 2.45. Three semester-hour credits. Assistant Professor CHURCHILL.

29. *Ancient History*.—An advanced course for students who have completed Courses 5 and 6, or who otherwise satisfy the instructor of their fitness to pursue the course. The ancient history of the near east. Second half-year, 1920-21. Not given 1921-22. The history of ancient Greece. Not given 1921-22. The history of ancient Rome. Given 1921-22. Three periods a week. Six semester-hour credits. Assistant Professor KAYSER.

30. *American Constitutional History*.—A history of the origin and development of the Federal Constitution of 1789, with a study of its interpretation under the pressure of party issues. Lectures, text-books, and collateral readings. *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Assistant Professor MCARTHUR.

31. *Modern European History*.—A study of the French revolution and subsequent reaction extending through the Revolution of 1848. First half-year. *Tu., Th., Sat.*, at 6.00. Three semester-hour credits. Professor SWISHER.

32. *Modern European History*.—From 1850 to the present time. Second half-year. *Tu., Th., Sat.*, at 6.00. Three semester-hour credits. Professor SWISHER.

33. *Current History*.—A discussion of political questions of the day, with special reference to their origin and historical significance. Lectures throughout the year. *Sat.*, at 11.15. Two semester-hour credits. Professor SWISHER.

35. *General History*.—History of Europe from the fall of the Empire of the West to the election of Charles V. *Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Professor SWISHER and Assistant Professor MCARTHUR.

Third Section. Primarily for Graduates.

54. *Seminary Work*.—The results of individual research, conducted by graduate students upon assigned topics, will be discussed

at the weekly meetings of the Seminaries of American and Modern European History.

Undergraduate students qualified by previous historical study, who desire to do intensive work with a view to gaining fuller information upon special periods or facility in the use of historical materials, may, with the approval of the instructor, be admitted to the historical seminaries. Regular meeting of Seminary, *Saturday*, 12.15-2.15. Six semester-hour credits. Professor SWISHER, Assistant Professor ALDEN, Assistant Professor CHURCHILL and Assistant Professor KAYSER.

HOME ECONOMICS

First Section. Primarily for Undergraduates.

1. *Domestic Science*.—Cooking, meal planning, table service and simple dietetics. Lecture, *Mon.*, 1.45; laboratory, *Wed.*, *Fri.*, 1.45-3.45. Six semester-hour credits. Miss EVANS.

2. *Domestic Science*.—Parallel with Course 1. Lecture, *Mon.*, 5.10; Laboratory, *Wed.*, *Fri.*, 5.10-6.50. Six semester-hour credits. Miss EVANS.

NOTE.—The laboratory work in courses 1 and 2 will be given in the Y. W. C. A. laboratory, 1333 F St. N. W. A \$5 laboratory fee applies to each course.

11. *Household Management*.—The home and homemaking; division of income; equipment and organization; labor-saving devices; cleaning, marketing and care of clothing. First half-year. *Tu.*, *Th.*, at 9.15. Two semester-hour credits. Miss EVANS.

13. *Foods*.—The production, manufacture and value of the common foods: Wheat, corn, rice, etc., and the food products derived from them; cocoa, chocolate, coffee, tea. Second half-year. *Tu.*, *Th.*, at 9.15. Two semester-hour credits. Miss EVANS.

INTERNATIONAL LAW AND DIPLOMACY

See Political Science.

LATIN

See Classical Languages.

MATHEMATICS

First Section. Primarily for Undergraduates.

3. *College Algebra; Solid Geometry; Plane Trigonometry*.—Algebra is studied during the first half-year, solid geometry during February and March, and trigonometry during April and May. Section A. *Mon.*, *Wed.*, *Fri.*, at 9.15. Section B. *Tu.*, *Th.*, *Sat.*, at 9.15. Six semester-hour credits. Mr. HANKIN.

4. *Algebra; Plane Trigonometry*.—Algebra is studied until April 1, and trigonometry during April and May. *Mon.*, *Wed.*, *Fri.*, at 5.10. Six semester-hour credits. Section A. Assistant Professor HODGKINS. Section B. Mr. HANKIN.

6. *College Algebra; Solid Geometry; Plane Trigonometry.*—Parallel with Course 3. *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Section A. Assistant Professor HODGKINS. Section B. Mr. HANKIN.

8. *College Algebra.*—Second half-year. Three semester-hour credits. Mr. DANIEL.

9. *Trigonometry; Analytic Geometry.*—Trigonometry until Jan. 1, analytic geometry for the remainder of the session. The completion of Course 3, 4 or 6 is requisite for admission to this course. *Mon., Wed., Fri.*, at 10.15. Six semester-hour credits. Professor ERWIN.

12. *Trigonometry; Analytic Geometry.*—Parallel with Course 9. Section A. *Mon., Wed., Fri.*, at 5.10. Section B. *Mon., Wed., Fri.*, at 6.00. Section C. *Tu., Th., Sat.*, at 6.00. Six semester-hour credits. Professor ERWIN and Mr. HANKIN.

18. *Differential and Integral Calculus; Elements of differential equations.*—*Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Professor HODGKINS.

19. *Differential and Integral Calculus; Elements of differential equations.*—*Th., Th., Sat.*, at 9.15. Six semester-hour credits. Professor HODGKINS.

Second Section. For Undergraduates and Graduates.

24. *An Elementary Treatise on the Theory of Equations; The Number-System of Algebra.*—*Tu., Th., Sat.*, at 10.15. First half-year. Three semester-hour credits. Professor ERWIN.

25. *Introduction to Infinitesimal Analysis; Hyperbolic Functions.*—*Tu., Th., Sat.*, at 10.15. Second half-year. Three semester-hour credits. Professor ERWIN.

30. *Differential Equations.*—*Mon., Fri.*, at 11.15. Four semester-hour credits. Professor HODGKINS.

31. *Least Squares.*—*Tu., Th.*, at 10.15. Second half-year. Two semester-hour credits. Professor HODGKINS.

32. *Differential Equations.*—First half-year. Three semester-hour credits. Mr. HANKIN.

Third Section. Primarily for Graduates.

54. *Theory of Functions of a Complex Variable.*—*Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Professor ERWIN.

55. *Differential Geometry.*—*Tu., Th., Sat.*, at 5.10. Six semester-hour credits. Professor ERWIN.

NOTE.—Not more than two of the courses 24, 25, 54, and 55 will be given during any one semester.

56. *Mathematical Logic.*—The nature of mathematical reason-

ing; the fundamental concepts of mathematics; mathematical systems; consistency, independence and completeness of postulates; postulates for geometries, algebras and logic; the "algebra" of logic. Second half-year. Three semester-hour credits. Mr. HANKIN.

MECHANICAL DRAWING

First Section. Primarily for Undergraduates.

1. *Mechanical Drawing*.—A general course embracing the care and use of instruments; Free-hand lettering, orthographic and isometric projections; sketching of simple machine details; principle of working drawings; curve plotting. Section A. *Mon., Wed.*, 1.45 to 4.45. Section B. *Mon., Fri.*, 7.30 to 10.30 p. m. Four semester-hour credits. Mr. CRUICKSHANKS, Mr. WILSON.

2. *Machine Drawing*.—A course in working drawings especially designed for Mechanical and Electrical Engineering students. The course is largely one of empirical design of standard parts. Much stress is laid upon drafting room practice, arrangement of views and conventional forms and standards. Section A. *Mon., Wed.*, 1.45 to 4.45. Section B. *Tu., Th.*, 7.30 to 10.30 p. m. Four semester-hour credits. Mr. CRUICKSHANKS, Mr. WILSON.

4. *Mechanical Drawing*.—A course for Chemical Students. Section A. *Wed.*, 1.45 to 4.45. Section B. *Mon.*, 7.30 to 10.30 p. m. Two semester-hour credits. Mr. CRUICKSHANKS, Mr. WILSON.

8. *Descriptive Geometry*.—A course of lectures, recitations, and drafting-room work on the line, point, and plane; single and double curved surfaces; tangent lines and tangent planes; intersections of lines, planes, and solids; shades, shadows and perspective. Section A. *Fri.*, 1.45 to 4.45. Section B. *Wed.*, 7.30 to 10.30 p. m. Two semester-hour credits. Mr. CRUICKSHANKS and Mr. EHRLMAN.

MECHANICAL ENGINEERING

First Section. Primarily for Undergraduates.

1. *Mechanism*.—A course in the systematic study of the kinematics of machinery, in which the mechanical movements are reduced to a scientific analysis. Carefully developed problems and diagrams of changes of position and speed in mechanism are constantly used.

Some attention is given to the design of gear teeth, and a large part of the second half-year is devoted to the study of steam-engine valve gears. Section A. *Mon., Wed., Fri.*, at 10.15. Section B. *Mon., Wed., Fri.*, at 6.00 and one two-hour drawing period per week. Eight semester-hour credits. Mr. CRUICKSHANKS.

9. *Engineering Laboratory*.—Testing mechanical apparatus.

Adjusting gauges, indicators, scales, etc. Determining the efficiencies of various steam engines, water pumps, and materials of construction. Tests of steam calorimeters; flow of air and water in pipes; and evaporative efficiency of boilers. Two three-hour periods, second half-year. Two semester-hour credits. Assistant Professor PLATT.

10. *Engineering Laboratory*.—A continuation of Course 9. Two three-hour periods, first half-year. Two semester-hour credits. Assistant Professor PLATT.

11. *Engineering Laboratory*.—Testing internal combustion engines. An advanced laboratory course for Mechanical Engineering students. In this course an automobile engine is completely dissembled, all parts studied and reassembled. Efficiency tests are run for both the automobile and stationary types of internal combustion engines. Two three-hour periods, second half-year. Two semester-hour credits. Assistant Professor PLATT.

Second Section. For Undergraduates and Graduates

20. *Thermodynamics, Steam Boilers, and Power Plant Accessories*.—About five months are devoted to the principles of thermodynamics, the theoretical gas and vapor cycles, and the properties of steam. The application of the theoretical vapor cycles to the real steam engine is discussed. The latter part of the course is devoted to the study of steam boilers, steam turbines, gas engines, steam power plant accessories, compression and refrigeration machinery. Three hours. Six semester-hour credits. Assistant Professor PLATT.

23. *Hydraulic Machinery*.—This course provides for an elementary study of hydraulic prime movers and pumping machinery. It includes a discussion of the theory and design of turbines and turbine blades for low and high heads, and turbine governors. Two hours, first half-year. Two semester-hour credits. Assistant Professor PLATT.

24. *Methods of Manufacture*.—A study of modern manufacturing methods, machine tools, automatic machines and quantity production machinery. Two hours, second half-year. Two semester-hour credits. Assistant Professor PLATT.

25. *Machine Design*.—This course is an application of principles already acquired to problems in design, each student being required to complete every detail of the design undertaken.

The constructive details and calculations are discussed and the limitations of theoretical and empirical formulas pointed out. One lecture-recitation hour and five hours in the drawing room. Four semester-hour credits. Assistant Professor PLATT.

26. *Dynamics of Machinery*.—A course including a number of the principal applications of dynamics to moving machinery, such as governors, fly-wheels, and the effect of the reciprocating parts of gas and steam engines. Two hours. Four semester-hour credits. Assistant Professor PLATT.

27. *Power Plant*.—A course of problems dealing with the operation, finance and economics of steam and gas-power plants. The course should be taken with the second semester of Mechanical Engineering, 20. Two three-hour problem periods. Two semester-hour credits. Assistant Professor PLATT.

28. *Industrial Management*.—A course dealing with the business systems of manufacturing establishments.

The work includes a study of the organization and relations of the various departments of an industrial establishment, both in the office and in the workshop. It also discusses the conduct of accounts, the method of superintendence and of compensating labor, the determination of the cost of production, and the effect on costs of different systems of distributing indirect expenses. This course also considers the factors which enter into a determination of the depreciation of structures and the economic selection thereof. Two hours. Four semester-hour credits. Assistant Professor PLATT.

29. *Heating and Ventilating*.—This course deals with the elementary principles underlying the subject of heating and ventilating. Furnace heating, direct and indirect steam heating, hot-water heating, and the ventilating of different types of buildings are discussed. Two hours. Second half-year. Two semester-hour credits. Assistant Professor PLATT.

30. *Gas Engines*.—This course deals with the thermodynamics and practice of the internal combustion engine. A study is made of the principal existing types of engines. Three hours. First half-year. Three semester-hour credits. Assistant Professor PLATT.

31. *Steam Turbines*.—This course deals with the thermodynamics and practice of the steam turbine. Nozzle and blade design is taken up and a study is made of the existing types of turbines. Two hours. Second half-year. Two semester-hour credits. Assistant Professor PLATT.

Third Section, Primarily for Graduates.

50. *Advanced Machine Design*.—Six semester-hour credits. Assistant Professor PLATT.

51. *Advanced Power Plant Design*.—Six semester-hour credits. Assistant Professor PLATT.

METEOROLOGY

Third Section. Primarily for Graduates.

50. *Applied Meteorology*.—Investigation of the underlying laws governing meteorological phenomena and of the methods employed in practice for their interpretation and applications. Six semester-hour credits. Professor MOORE.

51. *Meteorological Physics*.—This course presupposes collegiate training in general physics. Particular attention will be given to the interpretation of meteorological phenomena in the light of modern physics; and those wishing to make this their principal study will be assisted in the selection of a suitable problem for investigation and advised in the collection of data necessary to its solution. Six semester-hour credits. Professor HUMPHREYS.

NAUTICAL SCIENCE

First Section. Primarily for Undergraduates.

1. *Nautical Science*.—Marine and aerial navigation; nautical astronomy; nautical almanac; production and use of nautical charts; tides; applications of meteorology, terrestrial magnetism and oceanography to navigation and seamanship; deviation of the compass in iron and steel ships; theory and use of instruments of navigation. Four semester-hour credits. Professor LITTLEHALES.

Third Section. Primarily for Graduates.

50. *Nautical Science*.—Special investigations requiring original thought in relation to avenues of progress, such as the neutralization of the effects of the ship's magnetism upon the compass, the development of the gyroscopic compass, the supplying of means to enable seamen to make astronomical observations at night or when the horizon is hidden from view. The applications of nautical astronomy to aerial navigation. Conferences, assigned readings, direction of research. Six semester-hour credits. Professor LITTLEHALES.

PHILOSOPHY AND PSYCHOLOGY

First Section. Primarily for Undergraduates.

1. *General Psychology*.—An introductory study of general Psychology carried on by means of text-book assignments, class-room discussions, lectures, and demonstrations. First half year. *Mon., Wed., Fri., at 10.15.* Three semester-hour credits. Assistant Professor METCALF.

2. *General Psychology*.—Parallel with Course 1. Second half-year. *Mon., Wed., Fri., at 5.10.* Three semester-hour credits. Assistant Professor METCALF.

3. *Logic*.—A study of the thinking process, the principles of de-

ductive and inductive inference, and the nature, structure, and organization of knowledge. Second half-year. *Mon., Wed., Fri.*, at 10.15. Three semester-hour credits. Professor RUEDIGER.

4. *Logic*.—Parallel with Course 3. First half-year. *Mon., Wed., Fri.*, at 5.10. Three semester-hour credits. Professor RUEDIGER.

6. *General Psychology*.—Parallel with course 1. First half-year. *Tu., Th., Sat.*, at 5.10. Three semester-hour credits. Assistant Professor METCALF.

8. *Logic*.—Parallel with course 3. Second half-year. *Tu., Th., Sat.*, at 5.10. Three semester-hour credits. Assistant Professor METCALF.

Second Section. For Undergraduates and Graduates.

20. *History of Philosophy*.—The more important epochs in the history of thought. Attention is directed to the relation of these distinctive periods to the course of the world's progress. *Tu., Th., Sat.*, at 10.15. Six semester-hour credits. Professor RICHARDSON.

21. *Ethics*.—A historical and theoretical course, with the aim of acquainting the student with the principal ethical theories. Reference is made to the application of these theories to concrete conditions. Second half-year. *Tu., Th.*, at 9.15. Two semester-hour credits. Professor RICHARDSON.

22. *Ethics*.—Parallel with Course 21. Second half-year. *Mon., Wed.*, at 6.00. Two semester-hour credits. Professor RICHARDSON.

23. *Experimental Psychology*.—Laboratory experiments on sensation, perception, attention, memory, feeling, motor processes, etc. Students will make written reports of experiments weekly, and reports will be discussed in conference. Prerequisite: General Psychology. Conference, *Mon.*, 1.45-2.45. Laboratory, *Wed., Fri.*, 1.45-3.45. Six semester-hour credits. Assistant Professor METCALF.

24. *History of Philosophy*.—The development of philosophy, its nature and problems. This course, while introductory, is designed to be comprehensive and to give the student a general survey of the philosophic field. *Tu., Th.*, at 5.10. Four semester-hour credits. Professor RICHARDSON.

25. *Mental Tests*.—A study of scientific methods of testing general intelligence and special abilities. Practical work with individual and group tests. Prerequisite: General Psychology. The number admitted to this course is limited. *Sat.*, 9.15-11.15. Four semester-hour credits. Assistant Professor METCALF.

27. *Contemporary Philosophy*.—A consideration of the various philosophical movements and tendencies of the immediate past. A critical study of the occasion and meaning of the trend of thought

at the present time. Lectures and reading of recent books and periodicals. *Wed.*, at 5.10. Two semester-hour credits. Professor RICHARDSON.

28. *Philosophy of Nature*.—A critical examination of the concepts of physical science. An investigation of the significance of scientific laws and theories. Not given in 1921-22. Two semester-hour credits. Professor RICHARDSON.

(Courses 27 and 28 are given in alternate years.)

29. *Problems of Philosophy*.—A critical and constructive examination of fundamental philosophic principles and problems. Lectures, readings, and reports. First half-year. *Tu., Th.*, at 9.15. Two semester-hour credits. Professor RICHARDSON.

30. *Problems of Philosophy*.—Parallel with Course 29. First half-year. *Mon., Wed.*, at 6. Two semester-hour credits. Professor RICHARDSON.

Third Section. Primarily for Graduates.

50. *Seminar in Psychology*.—Subject for 1921-1922: Memory, Imagination, and Thought. Papers by members of the seminar, reports of recent literature, and discussions. Open to undergraduates only with the consent of the instructor. *Tu., Th.*, 6.00. Six semester-hour credits. Assistant Professor METCALF.

51. *Seminar in Philosophy*.—Topic for 1921-22: The philosophical aspects of religion and the application of philosophical thought to theological problems. Readings, conferences, and written reports. Six semester-hour credits. Professor RICHARDSON.

52. *Advanced, Experimental, Abnormal or Physiological Psychology*.—In 1920-21 the topic was "The Endocrine Organs in Relation to Other Bodily and Mental Activities, with Special Reference to the Emotions." In 1921-22 the topic will be "Learning." Prerequisite—courses in general psychology, and introductory experimental psychology. Conferences, reading of recent literature, and demonstrations. *Mon.*, 7.30-9.30. Six semester-hour credits. Professor FRANZ.

53. *Research in Psychology*.—Advanced students, who select psychology as major or minor for the degree of A. M., or Ph. D., will be given special topics for investigation in abnormal, physiological or experimental psychology. To be preceded or accompanied by Course 52 or its equivalent. Six semester-hour credits. Professor FRANZ.

54. *Philosophy of Freedom*.—The metaphysical basis of the problem of freedom; freedom as a problem of ethics; the value of freedom; freedom and responsibility; the problem of freedom in organized society, or the place of freedom in the philosophy of

the state; the application of freedom to modern legal problems, *e. g.*, freedom of contract, freedom and criminal responsibility. Six semester-hour credits. Mr. HANKIN.

PHYSICS

First Section. Primarily for Undergraduates.

1. *General Physics*.—A recitation and lecture course, embracing the fundamental principles of mechanics, sound, heat, light, and electricity. The lectures are illustrated by experimental demonstrations. This is a required course for Sophomores in Engineering, and may be elected by the general student who has completed Mathematics 9 or 12. Section A, *Mon., Wed., Fri.*, at 11.15; Section B, *Mon., Wed., Fri.*, at 5.10. Six semester-hour credits. Assistant Professor CHENEY.

2. *Laboratory Physics*.—Laboratory methods, accurate measurement of physical quantities, and experimental study of physical laws and apparatus. Course 2 is arranged to accompany Course 1, and may not otherwise be taken without previous preparation in Physics equivalent to Course 1. Two two-hour periods. *Tu., Th.*, 10.15, 2.45, or 7.30, or *Mon., Fri.*, 7.30. Four semester-hour credits. Professor BROWN, Assistant Professor CHENEY and assistants.

3. *Introductory General Physics*.—Recitations, and lectures illustrated by experimental demonstrations. Similar in scope to Course 1, but less mathematical in treatment. Planned with reference to the needs of the student who desires an acquaintance with the facts and principles of Physical Science in their relation to the other sciences. Section A, *Mon., Wed., Fri.*, at 1.45; Section B, *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Professor BROWN.

4. *Introductory Laboratory Physics*.—Laboratory methods, and experimental study of physical laws and apparatus, and of the use of the simpler instruments of precision measurement. Course 4 is arranged to accompany Course 3, and may not otherwise be taken without previous preparation in Physics equivalent to Course 3. *Tu., Th.*, 10.15, or *Tu., Th.*, 2.45, or *Mon., Fri.*, 7.30. Four semester-hour credits. Professor BROWN, Assistant Professor CHENEY and Assistants.

9.—*Elementary Electricity and Magnetism and Its Applications*.—The plan of this course is to familiarize the student of general science with electrical equipment and machinery, and with the principles that underlie their operation. The fundamental principles of electricity and magnetism are presented in a non-technical manner and illustrated by many experimental demonstrations, and electrical equipment and machinery will be studied by

examination of the equipment of the George Washington University laboratories and by trips of inspection to various plants and laboratories in the vicinity. No previous college preparation required. One lecture and one recitation per week. Four semester-hour credits. *Tu., Th., 11.15.* Professor BROWN.

Second Section. For Undergraduates and Graduates.

21. *Heat and Thermodynamics.*—A recitation and lecture course, using Edser's *Heat* as a class text, and the more advanced texts and the literature for reference reading. Six semester-hour credits. *Tu., Th., Sat., at 5.10.* Assistant Professor CHENEY.

22. *Light.*—A recitation and lecture course, using Edser's *Light* as a class text, and the more advanced texts and the literature for reference reading. Six semester-hour credits. Not given in 1921-22. Professor BROWN.

23. *Electricity and Magnetism.*—Lectures and recitations. The fundamental theory and phenomena of Electricity and Magnetism will be studied as a preparation for the study of the recent developments and theories in this field of Physical Science. Special attention will be given, toward the end of the course, to the electron theory in its relation to these modern developments. Six semester-hour credits. Not given in 1921-22. Professor BROWN.

24. *Mechanics, Wave Motion, and Sound.*—Lectures and recitations. An introduction to theoretical mechanics. Statics is reviewed briefly. The dynamics of translation and of rotation is treated in considerable detail, and applications studied. The dynamics of wave motion is carefully considered, and the phenomena of sound studied from the physical viewpoint. Other physical phenomena, such as surface tension, viscosity, etc., not considered in the other courses, may be taken up. Six semester-hour credits. *Mon., Wed., Fri., 5.10.* Professor BROWN.

25. *Advanced Laboratory Physics.*—This course is planned to follow Course 2, and is given for students especially interested in Physics. The experimental work may be of a general nature, or may follow special lines of study, according to the needs of the individual student. Course 25 may advantageously be taken by students in Courses 21, 22 and 23. One or more periods per week. Two or more semester-hour credits. Hours by arrangement. Professor BROWN and Assistant Professor CHENEY.

NOTE.—Courses 21 to 24 inclusive constitute a complete intermediate course in Physics which may be taken during their Junior and Senior years by students specializing in physics and allied sciences. They should be accompanied wherever possible by laboratory work in course 25. See the schedule for such students

on page 57. Physics 1 and 2, and Mathematics 18 or 19, or the equivalents of these, are required for admission to any of these courses.

Third Section. Primarily for Graduates.

57. *Statistical Mechanics and Kinetic Theory.*—This course includes Gibb's preliminary derivation of the fundamental equations of thermo-dynamics and a discussion of the physical properties of gases from the standpoint of general dynamics. Viscosity, diffusion, heat conduction, Brownian movements, Van der Wall's equations and molecular aggregation and dissociation. Gibb's statistical mechanics and Jean's Dynamical Theory of Gases. A lecture and seminar course. Mon. at 5.10. Two semester-hour credits. Mr. VAN ORSTRAND.

58. *Elasticity.*—The physical properties of solids as applied to problems in geophysics. Homogenous stress and strain. Potential energy of strained solids. Transmission of force. Propagation of earthquake waves. Love's Mathematical Theory of Elasticity. A lecture and seminar course. Not given in 1921-22. Mr. VAN ORSTRAND.

60. *Least Squares.*—Derivation of the law of errors and adjustment of observations with special reference to the determination of the constants of empirical formulas. Merrimans' Method of Least Squares. A lecture and recitation course. First half-year. Not given in 1921-22. Mr. VAN ORSTRAND.

61. *Conduction of Heat.*—Fourier's analysis is applied to numerous problems in the diffusion of heat and substances. Ingersoll and Zobel's Mathematical Theory of Heat Conduction. A lecture and recitation course. Second half-year. Not given in 1921-22. Mr. VAN ORSTRAND.

POLITICAL SCIENCE

First Section. Primarily for Undergraduates.

1. *Government of the United States.*—Besides an analysis of the structure of the federal government this course includes a study of the powers and the influence of the president, the power to make treaties, to tax, to control the railroads and the wires, and to restrict immigration. The course surveys the functions of the courts, and of the various commissions. The problems connected with the currency, the tariff, foreign commerce, and with our colonial empire are discussed. Governmental changes in foreign countries are noted and compared with those at home. First half-year. Mon., Wed., Fri., at 10.15. Three semester-hour credits. Professor HILL.

2. *Government of the United States.*—Parallel with Course 1.

Tu., Th., Sat., at 6.00. Three semester-hour credits. Professor HILL.

3. *State Government.*—The vote, public opinion, direct legislation, police power, public utilities, and executive responsibility are the chief topics. A rapid survey is made of the three types of city government and of the county and township governments. Second half-year. *Mon., Wed., Fri., at 10.15. Three semester-hour credits. Professor HILL.*

4. *State Government.*—Parallel with Course 3. *Tu., Th., Sat., at 6.00. Three semester-hour credits. Professor HILL.*

Second Section. For Undergraduates and Graduates.

21. *Comparative European Governments.*—The governments of the British Empire and of France. First half-year. *Mon., Wed., Fri., at 11.15. Three semester-hour credits. Professor HILL. Not given in 1921-22.*

22. *Comparative European Governments (continued).*—The Governments of Italy, Switzerland and Germany are described and some attention is given to the form and functions of the government in the new states. Second half-year. *Mon., Wed., Fri., at 11.15. Three semester-hour credits. Professor HILL. Not given in 1921-22.*

23. *City Government in the United States.*—A study of the origin and structure of the mayor and council, commission, and city manager plans, home rule, the relation of the city to the state, municipal powers and officers, social and individual rights and of references to European experience. First half-year. *Tu., Th., Sat., at 5.10. Three semester-hour credits.*

24. *Constitutional Law.*—The interpretation of clauses in the constitutions of the United States and of the separate states affecting officers, courts, powers of Congress, police power and private rights as found in judicial decisions forms the subject matter. Second half-year. *Tu., Th., Sat., at 5.10. Three semester-hour credits.*

27. *International Relations.*—The leading European treaties, especially during the last century. The purpose is to find what principles of international law and diplomacy have been evolved and applied. First half-year. *Mon., Wed., Fri., at 9.15. Three semester-hour credits. Professor HILL.*

28. *International Relations (continued).*—Leading American treaties form the basis for this course. Second half-year. *Mon., Wed., Fri., at 9.15. Three semester-hour credits. Professor HILL.*

29. *Principles of International Law.*—First half-year. *Mon., Wed., Fri., at 11.15. Three semester-hour credits. Rear Admiral STOCKTON and Professor HILL.*

30. *Elements of Diplomacy and Diplomatic Usage*.—Second half-year. *Mon., Wed., Fri.*, at 11.15. Three semester-hour credits. Rear-Admiral STOCKTON and Professor HILL.

Third Section. Primarily for Graduates.

51. *Readings in Political Science*.—This course is arranged to meet the individual needs of advanced students. The handling of material and the writing of a report are included. Hours by appointment. Two semester-hour credits each half-year. Professor HILL.

PREVENTIVE MEDICINE

Third Section. Primarily for Graduates.

50. A seminar course dealing with vital statistics; etiology and prevention of infectious diseases; causes and prevention of infant mortality; prevention of disease of occupation; protective inoculations; municipal hygiene; national and interstate preventive measures. Six semester-hour credits. Professor WHITMORE.

ROMANCE LANGUAGES AND LITERATURES

French

First Section. Primarily for Undergraduates.

1. *First-Year Course*.—For beginners. Fraser and Squair's New French Grammar. Grammar, composition, drill in pronunciation, translation and reading of modern French fiction, comedy and history. For beginners. Six semester-hour credits. Section A, *Mon., Wed., Fri.*, at 9.15; Section B, *Tu., Th., Sat.*, at 9.15. Mr. PROTZMAN.

2. *First-Year Course*.—For beginners. Parallel with Course 1. Fraser and Squair's New French Grammar. Six semester-hour credits. Section A, *Mon., Wed., Fri.*, at 5.10. Mr. KRAMER. Section B, *Mon., Wed., Fri.*, at 6.00. Mr. CULLOM. Section C, *Tu., Th., Sat.*, at 5.10. Mr. PROTZMAN. Section D, *Tu., Th., Sat.*, at 6.00. Mr. PROTZMAN.

3. *Second-Year Course*.—Fraser and Squair's French Grammar. First text, Mérimée, "Colomba" (Heath); other texts to be announced. Open to students who have passed in French 1 or 2, or have fulfilled the admission requirements in Elementary French. Six semester-hour credits. Section A, *Mon., Wed., Fri.*, at 10.15, Professor HENNING. Section B, *Tu., Th., Sat.*, at 10.15. Mr. PROTZMAN.

4. *Second-Year Course*.—Parallel with Course 3. Fraser and Squair's French Grammar. First text, Dumas fils, "La question d'argent" (Heath); other texts to be announced. Six semester-

hour credits. Section A, *Tu., Th., Sat.*, at 5.10. Mr. KRAMER.
Section B, *Tu., Th., Sat.*, at 6.00. Mr. CULLOM.

5. *General Survey of Modern French Literature*.—(Nineteenth, eighteenth, and seventeenth centuries.) Translation, collateral reading and reports thereon, lectures on literature. Open to students who have passed in Courses 3 or 4, or have fulfilled the admission requirements in Advanced French. Six semester-hour credits. *Mon., Wed., Fri.*, at 4.00. Professor HENNING.

6. *Parallel with French 5*.—Six semester-hour credits. *Tu., Th., Sat.*, at 5.10. Professor HENNING. (This course will be given only if elected by at least six students at the beginning of the year.)

7. *Conversation and Composition (Elementary Course)*.—Open to students who have passed in French 1 or 2, or have fulfilled the admission requirements in Elementary French, or otherwise satisfy the instructor of their fitness to take it. Four semester-hour credits. *Mon., Wed., Fri.*, at 5.10. Miss MARET. (This course will be given only if elected by at least twelve students at the beginning of the year.)

8. *Conversation and Composition (Advanced Course)*.—Open to students who have passed in French 7, or otherwise satisfy the instructor of their fitness to take it. Four semester-hour credits. *Mon., Wed., Fri.*, at 6.00. (This course will be given only if elected by at least ten students at the beginning of the year.)

Second Section. For Undergraduates and Graduates.

(Courses in this group are open to students who have passed in Courses 5 or 6, or otherwise satisfy the instructor of their fitness to take them.)

21. *Literature of the Seventeenth Century*.—History, philosophy, criticism, memoirs, letters, eloquence, drama, fiction, poetry. Balzac, Boileau, Corneille, Descartes, Fénelon, Mme de La Fayette, La Bruyère, La Fontaine, La Rochefoucauld, Malherbe, Molière, Racine, Saint Evremond, Saint-Simon, Mme de Sévigné, etc. Translation, collateral reading and reports thereon, lectures on literature and history. Six semester-hour credits. *Mon., Wed., Fri.*, at 5.10. Professor HENNING.

26. *Literature from 1750 to 1850; The Romantic Movement*.—History, criticism, travels, fiction, drama, lyric poetry. Rousseau, Bernardin de Saint-Pierre, Chénier, Balzac, Baudelaire, Chateaubriand, Gautier, Hugo, Lamartine, Michelet, Musset, Sainte-Beuve, George Sand, Mme de Staël, Thierry, Vigny, etc. Translation, collateral reading and reports thereon, lectures on literature and history. Six semester-hour credits. *Mon., Wed., Fri.*, at 5.10. Professor HENNING. (Not given in 1921-22.)

28. *Literature from 1850 to the Present.*—History, philosophy, criticism, fiction, drama, lyric poetry. Augier, Brunetière, Daudet, Dumas fils, Flaubert, France, Heredia, Hervieu, Leconte de Lisle, Lemaitre, Loti, Maeterlinck, Maupassant, Mérimée, Renan, Rostand, Sully Prudhomme, Taine, Verlaine, etc. Six semester-hour credits. *Mon., Wed., Fri.*, at 5.10. Professor HENNING. (Not given in 1921-22.)

Third Section. Primarily for Graduates.

50. *Old French.*—Philology and Literature. *La Chanson de Roland* and Chrétien de Troyes. Phonology and morphology of Old French, with an outline of its development through Vulgar Latin. Survey of French Literature to the end of the 13th century. Some knowledge of Latin is essential. Six semester-hour credits. *Mon., Wed., Fri.*, at 5.10. Professor DOYLE. (Not given in 1921-22.)

55. One course in the literature of the seventeenth century will be arranged for competent graduates. Six semester-hour credits. *Mon., Wed., Fri.*, at 5.10. Professor HENNING.

Spanish

First Section. Primarily for Undergraduates.

1. *First-Year Course.*—For beginners. Hills and Ford's First Spanish Course. Grammar, written and oral composition, drill in pronunciation, translation of modern Spanish fiction, comedy and history. Six semester-hour credits. Section A. *Mon., Wed., Fri.*, at 9.15. Mr. PATISON. Section B. *Tu., Th., Sat.*, at 9.15. Mr. PATISON. Section C. *Mon., Wed., Fri.*, at 10.15. Mr. PATISON.

2. *First-Year Course.*—For beginners. Parallel with Course 1. Hills and Ford's First Spanish Course. Six semester-hour credits. Section A. *Mon., Wed., Fri.*, at 5.10. Mr. PATISON. Section B. *Mon., Wed., Fri.*, at 6.00. Mr. PROTZMAN. Section C. *Tu., Th., Sat.*, at 5.10. Mr. PATISON. Section D. *Tu., Th., Sat.*, at 6.00. Mr. PATISON. Section E. *Mon., Wed., Fri.*, at 5.10. Mr. JONES. Section F. *Mon., Wed., Fri.*, at 6.00. Mr. JONES.

3. *Second-Year Course.*—Review of grammar, composition, translation of modern Spanish prose and poetry, collateral reading. Open to students who have passed in Course 1 or 2, or have fulfilled the admission requirements in Elementary Spanish, or otherwise satisfy the instructor of their fitness to take the course. Six semester-hour credits. Section A. *Mon., Wed., Fri.*, at 10.15. Professor DOYLE. Section B. *Tu., Th., Sat.*, at 9.15. Professor DOYLE.

4. *Second-Year Course*.—Parallel with Course 3. Six semester-hour credits. Section A. *Mon., Wed., Fri.*, at 6.00. Professor DOYLE. Section B. *Tu., Th., Sat.*, at 5.10. Professor DOYLE. Section C. *Tu., Th., Sat.*, 6.00. Mr. LAMORE.

6. *General Survey of Modern Spanish Literature*.—Eighteenth and nineteenth centuries; contemporary writers. Translation of representative works of drama, fiction, poetry. Lectures on the history of Spanish Literature. Outside reading and reports. Composition. Open to students who have passed in Spanish 3 or 4 or have done equivalent work. *Mon., Wed., Fri.*, at 5.10. Six semester-hour credits. Professor DOYLE.

7. *Conversation and Composition*.—Open to students who have passed in Spanish 1 or 2, or have fulfilled the admission requirements in Elementary Spanish, or otherwise satisfy the instructor of their fitness to take it. *Mon., Wed., Fri.*, at 6.00. Four semester-hour credits. Mr. VAZQUEZ. (This course will be given only if elected by at least twelve students at the beginning of the year.)

8. *Spanish-American Prose*.—Study of some of the leading critics, essayists, and novelists: Rodó, Hostos, Blanco-Fombona, Blest Gana, etc. Lectures and collateral reading. Open to students who have had two years of college Spanish or who otherwise satisfy the instructor of their fitness. First half-year, *Mon., Fri.*, at 5.10. Two semester-hour credits. Mr. JONES. (Not given in 1921-22.)

10. *Spanish-American Poetry*.—Intensive study of some of the leading poets: Olmedo, Bello, Heredia, Darío, Chocano, Valencia, Nervo, etc. Open to students who have had two years of college Spanish or who otherwise satisfy the instructor of their fitness. Second half-year. *Mon., Fri.*, at 5.10. Two semester-hour credits. Professor DOYLE. (Not given in 1921-22.)

Second Section. For Undergraduates and Graduates.

(Courses in this group are open to students who have passed in Course 6, or otherwise satisfy the instructor of their fitness to take them.)

22. *Spanish Literature of the Sixteenth and Seventeenth Centuries*.—The Golden Age. Cervantes, Calderón, Lope de Vega. The classic Spanish drama. Origins and rise of the novel. The ballad. Lyric poetry. References to the influence of Spanish literature upon French and English. Translation, reports on outside reading, lectures. A large amount of collateral reading will be required. *Mon., Wed., Fri.*, at 4.00. Six semester-hour credits. Professor DOYLE.

Italian

2. *First-Year Course*.—For beginners. Grandgent's Grammar. Grammar, composition, drill in pronunciation, translation and reading of modern Italian fiction, comedy, history, and descriptive matter. Six semester-hour credits. *Mon., Wed., Fri.*, at 5.10. Mr. LAMORE. (This course will be given only if elected by at least twelve students at the beginning of the year.)

4. *Second-Year Course*.—Grandgent's Grammar, and Grandgent's Composition. First text, Goldoni's *Il vero Amico* (Heath). Other texts to be announced. Open to students who have passed in Italian 2, or otherwise satisfy the instructor of their fitness to take it. Six semester-hour credits. *Mon., Wed., Fri.*, at 6.00. Mr. LAMORE. (This course will be given only if elected by at least eight students at the beginning of the year.)

Portuguese

Primarily for Undergraduates.

1. *First-Year Course*.—For beginners. Branner's Portuguese Grammar; Barreto and Laet's *Anthologia Nacional*. Phonetics and drill in pronunciation, dictation, grammar, translation, composition and conversation. In the second semester the classes are conducted mainly in Portuguese. *Mon., Wed., Fri.*, at 6.00. Six semester-hour credits. Professor COUTINHO.

4. *Second-Year Course*.—Barreto and Laet's *Anthologia Nacional*; Mendes dos Remedios' *Historia de Literatura Portuguesa*. Advanced grammar, composition, reading and translation of modern prose and poetry (Portuguese and Brazilian authors of XVIII and XIX centuries). In the second semester Portuguese authors of XVI and XVII centuries. Classes will be conducted in Portuguese. *Mon., Wed., Fri.*, at 5.10. Six semester-hour credits. Professor COUTINHO.

COMPARATIVE ROMANCE LITERATURES

2. *Literary Evolution of Romance Languages*.—General survey of the history of literary movements in the Latin countries of Europe and Latin America, from the tenth century to the present time. Students will be required to read during the course the principal authors in English translations. *Wed. and Fri.*, at 4.00. Four semester-hour credits. Professor COUTINHO.

SEMITIC LANGUAGES AND LITERATURE

Second Section. For Graduates and Undergraduates.

20. *Elementary Hebrew*.—Hebrew vocabulary and grammar; reading, translations of simple passages and briefer exercises.

This course is open to beginners. Two hours a week. Four semester-hour credits.

22. *Advanced Hebrew*.—An intensive study of Hebrew grammar and its relation to Semitics in general. Comparative Semitic philology will be pursued. Translations of longer passages of prose and poetry. Readings and selections from the Old Testament and postbiblical literature. Two hours a week. Four semester-hour credits. Professor SCHAPIRO.

Third Section. Primarily for Graduates.

50. Study of the history and development of Hebrew and cognate literatures. Certain epochs of Jewish History. A review of Modern Hebrew literature with particular emphasis on productions of the Haskala period. Special topics in addition to be selected by candidates. Six semester-hour credits. Professor SCHAPIRO.

ZOOLOGY

First Section. Primarily for Undergraduates.

1. *Systematic Zoology*.—Invertebrates. This includes lectures and laboratory work. The lectures cover all the branches of Invertebrates, and correlated with these lectures is the study and dissection of typical specimens in each group. This course is intended to familiarize the student with biological characters, classificatory laws, and the general principles of evolution. Lecture, Fri., at 5.10; laboratory, Mon., Wed., 5.10-6.50. Additional laboratory sections at hours to be announced. Six semester-hour credits. Professor BARTSCH, Mr. SCHMITT and Miss MACMILLAN.

2. *Systematic Zoology*.—Vertebrates. This includes lectures and laboratory work. The lectures will cover the various branches of Vertebrates, and correlated with these is the study and dissection of typical specimens of each group. Lecture, Mon., at 6.00; laboratory Wed., Fri., 5.10-6.50. Additional laboratory sections at hours to be announced. Six semester-hour credits. Professor BARTSCH, Mr. SCHMITT, and Miss MACMILLAN.

PRE-MEDICAL

3. *Zoology*.—Invertebrates and vertebrates. A lecture and laboratory course covering the pre-medical requirements. Lecture Mon., at 5.10. Three two-hour laboratory periods. Eight semester-hour credits. Professor BARTSCH, Miss MACMILLAN and Mr. SCHMITT.

Second Section. For Undergraduates and Graduates

20. *Practical Zoology*.—A lecture course illustrated with lantern slides and demonstrations. In this course only beneficial and injurious animals of all classes will be considered, especial stress

being laid upon the problems of preservation and extermination. The course aims to expound the economic side of zoology. Open to all students. One hour. Two semester-hour credits. Professor BARTSCH.

23. *Ornithology*.—A systematic course embracing lectures and laboratory work. The lectures are illustrated with lantern slides, showing the home life of birds. The laboratory work consists in classifying bird skins, of which the University possesses an excellent series. Special attention is directed to the study of the birds of the District of Columbia, and frequent field excursions are made to familiarize the student with the haunts and habits of these forms. Lecture, one hour; laboratory, one two-hour period. Four semester-hour credits. Professor BARTSCH.

Laboratory courses in histology and physiology will be arranged for competent students.

Third Section. Primarily for Graduates

50. Courses may be arranged for competent graduates. Six semester-hour credits. Professor BARTSCH.

SUMMER SCHOOL ARTS AND SCIENCES

1921

CALENDAR

- June 16-30 Registration, 10-12 a. m.; 4-6 p. m.
June 20 *Monday*—Instruction begins in the three-credit courses coming at 7:45 a. m. and in the afternoon classes, except when otherwise noted in the text.
June 27 *Monday*—Instruction begins in the two-credit courses coming in the forenoon.
July 4 *Monday*—Holiday.
July 9 *Saturday*—Classes meet at the usual hours.

ADMISSION

No entrance examinations or certificates of work completed in secondary schools will be required for admission to the Summer School, but no student will be allowed to register for any except an elementary course until he has given evidence satisfactory to the instructor concerned or to the Director that he is qualified to pursue the course to advantage.

REGISTRATION

The Director's office, 2023 G Street N. W., will be open to receive registrations from 10-12 a. m. and 4-6 p. m., after June 16. *Registration for courses, changes in registration, and the dropping of courses must all be arranged through the Director's office.*

CREDIT

The units of credit in semester hours carried by the several courses are indicated both in the schedule of classes on pages 6-8 and in the descriptive outlines of the course on pages 8-14. A semester-hour of work covers a minimum of fifteen class or laboratory periods.

Work satisfactorily completed in the Summer School will be accredited toward a degree at George Washington University on the same basis as work completed during the regular session.

CERTIFICATES

Certificates of attendance and of work satisfactorily completed will be issued on or about September 1.

FEES

Tuition fee per semester-hour.....	\$ 6.00*
Laboratory fees:	
Chemistry S 2, S 3, and S 7, each.....	10.00
Chemistry S 20, \$15; S 21.....	20.00
Home Economics I and II.....	2.00
Chemistry S 8 and Physics 2a or 2b.....	5.00
Breakage deposit in chemistry, the amount paid in excess of breakage to be returned, S 2, S 3, S 7, and S 8, each.....	10.00
Courses S 20, \$15; S 21.....	20.00

PAYMENT OF FEES

All fees are payable at the Treasurer's Office, 2101 G Street by July 3. Students who find it impossible to pay their fees by that date should make special arrangements with the Director when they register. No certificate of attendance or of credit will be issued unless all fees have been paid.

Students who are compelled to withdraw before the end of the session should promptly notify the Director, who will make a fair adjustment of the fees. No separate registration fee is charged, but one dollar of the tuition fee may not be canceled. As the fiscal year of the University ends August 31, no requests for refunds can receive consideration after that date.

LIBRARY

The University Library, which is found in the first floor of Lisner Hall, will be open during the session of the Summer School.

FACULTY

WILLIAM MILLER COLLIER, L.H.D., D.C.L., LL.D.

President of the University

HOWARD LINCOLN HODGKINS, Ph.D., Sc.D.

Dean of the Department of Arts and Sciences

WILLIAM CARL RUEDIGER, Ph.D. *Director of the Summer School*

* Except for those George Washington University students who paid \$5.00 per semester-hour during 1920-21.

LEVI RUSSELL ALDEN, A.M. _____ *Assistant Professor of History*
 GERTRUDE RICHARDSON BRIGHAM, Ph.D. _____

Instructor in History of Art

THOMAS BENJAMIN BROWN, Ph.D. _____ *Professor of Physics*

WALTER LYNN CHENEY, B.S. _____ *Instructor in Physics*

GEORGE M. CHURCHILL, Ph.D. _____ *Assistant Professor of History*

DE WITT CLINTON CROISSANT, Ph.D. _____ *Professor of English*

WALTER S. DEFFENBAUGH, A.M. _____

Specialist in U. S. Bureau of Education

HENRY GRATTAN DOYLE, A.M. _____

Assistant Professor of Romance Languages

JOHN THOMAS ERWIN, A.M. _____ *Professor of Mathematics*

F. M. GARVER, Ph.D. _____ *Education*

GREGORY S. HANKIN, A.M. _____ *Instructor in Mathematics*

CHARLES EDWARD HILL, Ph.D. _____ *Professor of Political Science*

HARRY GRANT HODGKINS, A.B. _____

Assistant Professor of Mathematics

ELMER LOUIS KAYSER, A. M. _____

Assistant Professor of History and Secretary of the University

ROBERT RUSS KERN, A.B. _____ *Professor of Economics*

CLARENCE C. KOCHENDERFER, A.M. _____

Assistant Professor of Commerce

ELIZABETH KUNDERT, B.S., (of Hood College) _____ *Home Economics*

HIRAM C. MCNEIL, Ph.D. _____ *Professor of Chemistry*

JEANNE MAKET, A.B. _____ *French*

JOHN T. METCALF, Ph.D. _____ *Assistant Professor of Psychology*

MERLE I. PROTZMAN, A.B. _____ *Instructor in Romance Languages*

CHARLES ELMER RESSER, Ph.D. _____ *Instructor in Geology*

ANNIE T. RENSHAW _____ *Public Speaking*

EDWARD ELLIOT RICHARDSON, M.D., Ph.D. _____

Professor of Philosophy

WILLIAM CARL RUEDIGER, Ph.D. _____ *Professor of Educational*

Psychology and Dean of Teachers College

ALFRED F. W. SCHMIDT, A.M. _____ *Professor of German*

R. W. SHUFELDT, M.D. _____ *Nature Study*

OTIS DOW SWETT, S.B., LL.M. _____ *Professor of Chemistry*

WILLIAM ALLEN WILBUR, A.M., Litt.D., _____

Professor of English and Dean of Columbian College

SCHEDULE OF CLASSES

The two-semester-hour classes coming in the forenoon begin on June 27 and all the others, unless otherwise noted in the text, on June 20. The two semester-hour classes meet five times a week for six weeks and the three-semester-hour classes five times a week

for nine weeks. No classes will be held Monday, July 4, but classes will meet on Saturday, July 9.

Courses which open with less than ten students may be withdrawn.

A. M.		Semester-hour
7:45-8:40		Credits
S25a	Junior High School	2 Dr. Garver
S45	History of Commerce	3 Professor Kochenderfer
SII	Composition	2 Dr. Brigham
SXXV	Shakespeare	2 Professor Wilbur
SXXIV	Revolutionary Europe	3 Professor Kayser
SXXIII	Philosophy	2 Professor Richardson
9:15-10:15		
SXXI	Art and Drawing	2 Dr. Brigham
S25b	Jr. H. S. Methods	2 Dr. Carver
S26	Poetry	2 Professor Wilbur
SVII	Textiles and Sewing	2 Miss Kundert
S3	Logic	2 Professor Richardson
10:15-11:15		
S22b	History of Education	2 Professor Kayser
SXXV	Literature and Science	2 Professor Croissant
S22	General Sociology	2 Professor Kern
S6b	Solid Geometry	2 Professor Erwin
S1	General Psychology	2 Professor Metcalf
11:15-12:15		
SXXXI	Educational Measurements	2 Dr. Garver
S23	Social Problems	2 Professor Kern
SI	Food and Nutrition	2 Miss Kundert
S21	Foreign Governments	2 Professor Hill
SI	Nature Study	2 Dr. Shufeldt
12:15-1:15		
SXI	Public Speaking	2 Mrs. Renshaw
4-5		
S30	International Law	3 Professor Hill
5:10-6		
S26	Elementary Education	2 Mr. Deffenbaugh
S33a	Commercial Law	2 Professor Alden
S42	Industrial Evolution	3 Professor Kochenderfer
S2a	General Economics	3 Professor Kern
S3	Geography	2 Dr. Resser
S2a	English Rhetoric	2 Professor Wilbur
SIVa	German	3 Professor Schmidt

S9a	American History	3	Professor Churchill
SII	Food and Nutrition	2	Miss Kundert
S4b	Trigonometry	2	Prof. H. G. Hodgkins
S9b	Analytic Geometry	3	Professor Erwin
S2	General Psychology	3	Professor Metcalf
S3a	Physica	3	Professor Brown
S28	American Treaties	3	Professor Hill
S2b	French (2nd Semester)	3	Mr. Protzman
S2a	First-year Spanish	3	Professor Doyle
S7	Conversational French	2	Miss Maret
5:10-6:50			
S1	General Chemistry	6	Professor Swett
S8	Organic Chemistry	6	Professor McNeil
6-6:50			
S20	Business	3	Professor Kochenderfer
S33b	Commercial Law	2	Professor Alden
S2b	General Economics	3	Professor Kern
S2b	English Rhetoric	2	Professor Wilbur
SXX	The Bible	3	Professor Croissant
S27	Latin-American History	3	Professor Churchill
SIa	Library Science	3	Professor Schmidt
S4a	College Algebra	3	Prof. H. G. Hodgkins
S9a	Trigonometry	3	Professor Erwin
S4	Logic	3	Mr. Hankin
S3b	Physics	3	Professor Brown
S1a	U. S. Government	3	Professor Hill
S2a	First-year French	3	Mr. Protzman
S2b	Spanish (2nd Semester)	3	Professor Doyle
6-7:40			
S2	Geology	4	Dr. Resser
6:50-7:40			
S29	American Literature	3	Professor Croissant
SXIIa	Library Science	3	Professor Schmidt
SXXXII	Philosophy of Freedom	3	Mr. Hankin
S4a	Second-year French	3	Mr. Protzman
S4a	Second-year Spanish	3	Professor Doyle
7-9			
S2a	Laboratory Physics	2	Mr. Cheney
S2b	Laboratory Physics	2	Mr. Cheney
7-10			
S2	Laboratory Chemistry	4	Professor Swett
S3	Inorganic Chemistry	4	Professor Swett
S7	Qualitative Analysis	4	Professor Swett

COURSES OF INSTRUCTION

The letter S, meaning Summer, is prefixed to the numbers of courses to distinguish them from the courses offered during the regular session of the University. Courses corresponding approximately to those offered during the regular session are given corresponding numbers. Courses not so corresponding are assigned Roman numerals. The letters a and b following some of the numbers signify correspondence respectively to first and to second semester work of the regular session.

ART

SXXI. *Art and Drawing*. A course for teachers and others interested in the study of art. Illustrated lectures on the history of art, accompanied by practical plans for teaching drawing in schools. Students will sketch in the classroom and out of doors, besides visiting galleries and art collections in Washington. Free-hand and mechanical drawing, posters and painting. An exhibition of class work will be held. At 9:15. Two semester-hour credits. Dr. Brigham.

CHEMISTRY

S1. *General Chemistry*.—A series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. 5:10-6:50. Six semester-hour credits. Professor SWETT.

S2. *Laboratory Practice*.—A laboratory course for the study of the principles of chemistry and the method of conducting chemical experiments. 7-10. Four semester-hour credits. Professor SWETT and assistants.

(NOTE: Courses S1 and S2 should be taken together. Courses S20, *Qualitative Analysis*, six semester-hour credits, S21, *Quantitative Analysis*, eight semester-hour credits, S23, *Organic Chemistry*, four semester-hour credits, and S26, *Physical Chemistry*, four semester-hour credits, will be given if demanded.)

S3. *Synthetic Inorganic Chemistry*.—Syntheses of inorganic compounds. 7-10. Four semester-hour credits. Professor SWETT and assistants.

S7. *Qualitative Analysis*.—A brief course intended primarily for students in engineering. 7-10. Four semester-hour credits. Professor SWETT and assistants.

S8. *Elementary Organic Chemistry*.—A lecture and laboratory course including both the aliphatic and aromatic series of compounds. Sixty-four lectures and 96 hours of laboratory work. Lectures Monday, Tuesday, Wednesday and Thursday 5:10-6:50.

Laboratory hours to be arranged. Six semester-hour credits. Professor MCNEIL.

COMMERCE

S 20. *Principles of Business*.—An introductory course in Business Economics. The following topics indicate the scope of the course, viz: Financing and management of business enterprises; purchasing; advertising; selling; ocean traffic and freight trade; credit; forecasting business conditions; banking; exchange; financial statements. At 6. Three semester-hour credits. Professor KOCHENDERFER.

S 33a. *Commercial Law*.—Contracts. At 5:10. Two semester-hour credits. Professor ALDEN.

S 33b. *Commercial Law*.—Commercial Papers. At 6. Two semester-hour credits. Professor ALDEN.

S 42. *European Industrial Evolution and World Politics*.—A somewhat detailed study of the awakening of Japan, the problem of China, the interplay of rival imperial ambitions in the Far East, the causes of the World War, the Versailles Peace Conference and the international settlement made thereby. The introductory portion of the course will cover as intensively as time will permit agrarian problems, colonial expansion and commercial policies, the development of industry, and transportation. At 5:10. Three semester-hour credits. Professor KOCHENDERFER.

S 45. *History of Commerce*.—The rise and progress of commerce from antiquity to modern times, with particular emphasis on the effects of commerce on civilization and the relations between commercial and political development. At 7:45 a. m. Three semester-hour credits. Professor KOCHENDERFER.

ECONOMICS AND SOCIOLOGY

S 2z. *General Economics*.—This course deals with the problems of the distribution of wealth and such questions as value, prices, wages, rent, and interest. At 5:10. Three semester-hour credits. Professor KERN.

S 2b. *General Economics*.—This course deals with the organization of the industrial system and embraces an analysis of marketing, efficient methods of production, and money and banking. A discussion of such modern programs as the trust movement, government ownership, and the like is included. At 6. Three semester-hour credits. Professor KERN.

(Courses S 2a and S 2b may be taken concurrently.)

S 22. *General Sociology*.—An outline course in the principles of

sociology devoted mainly to the study of the organization of society, the social systems, their functions, efficiencies, and programs for their development. At 10:15. Two semester-hour credits. Professor KERN.

S 23. *Modern Social Problems*.—A further analysis of modern social conditions with special studies of current questions in sociology. At 11:15. Two semester-hour credits. Professor KERN.

(Courses S 22 and S 23 may be taken concurrently.)

EDUCATION

S 22b. *History of Education*.—A survey of the evolution of educational theory and practice in modern times. The course is professional and cultural and aims to give teachers and social workers an intelligent historical background for their work. At 10:15. Two semester-hour credits. Assistant Professor KAYSER.

S 25a. *The Junior High School—History and Organization*.—A brief history of the rise and growth of the movement variously known as the intermediate school, the Junior High School, the six-six plan, etc. The peculiar functions of the Junior High School: Arguments for and against this newer reorganization of public education. A careful consideration of the aims, essentials, and purposes; organization, curriculum and courses of study; buildings and equipment; teachers and salaries; comparative costs. At 7:45 a. m. Two semester-hour credits. Dr. GARVER.

S 25b. *The Junior High School—Methods of Instruction*.—This course involves (1) a review of the general methods of teaching best adapted to adolescent boys and girls; (2) an evaluation of the subject-matter and methods of presenting it in the light of the aims and purposes of the Junior High School. The following topics will be examined critically: Supervised study, home study, project and problem teaching, the socialized recitation, educational and vocational guidance, self government and other extra classroom activities. At 9:15. Two semester-hour credits. Dr. GARVER.

S 26. *Elementary School Problems*.—A practical course for elementary school teachers and supervisors. A critical examination of recent tendencies. Text, collateral reading, and discussion. Much use is made of the chapters on Instruction in school survey reports. At 5:10. Two semester-hour credits. Mr. DEFFENBAUGH.

S XXXI. *Educational Measurements*.—This course provides for a careful study of some of the more important educational tests and scales; methods of administering and scoring them and of tabulating and interpreting the results. Special attention will

be given to the diagnostic use of tests and the various methods that have been used successfully in correcting known weaknesses of pupils. Some attention will be given to intelligence tests and their use in the proper classification of children. At 11:15. Two semester-hour credits. Dr. GARVER.

ENGLISH

S 2a. *English Rhetoric*.—Covering the text of the regular course for the first semester. At 5:10. Two semester-hour credits. Professor WILBUR.

S 2b. *English Rhetoric*.—Covering the text of the regular course for the second semester. At 6. Two semester-hour credits. Professor WILBUR.

S II. *English Composition*.—Practice in self-expression; correction of common errors; methods of research; the short story. Special help for personal needs. At 7:45. Two semester-hour credits. Dr. BRIGHAM.

NOTE: The completion of courses S 2a, S 2b and S II together will be accepted in full satisfaction of the curriculum requirement in Freshman English.

S XI. *Public Speaking*.—The theory and practice of extemporaneous speaking. At 12:15. Two semester-hour credits. Mrs. RENSHAW.

S XX. *Literature of the Bible*.—The study of portions of the Bible from a literary point of view. At 6. Three semester-hour credits. Professor CROISSANT.

S XXV. *Shakespeare*.—Selected plays. At 7:45 a. m. Two semester-hour credits. Professor WILBUR.

S 26. *Poetry*.—A cycle of poems having distinctive cultural quality. At 9:15. Two semester-hour credits. Professor WILBUR.

S 29. *American Literature*.—Lectures and collateral reading from American poetry. At 6:50. Three semester-hour credits. Professor CROISSANT.

S XXXV. *Literature and Science*.—The influence of the theory of evolution upon the prose and poetry of the nineteenth century. Collateral reading from Huxley, Stevenson, Browning and others. At 10:15. Two semester-hour credits. Professor CROISSANT.

FRENCH

See Romance Languages

GEOLOGY

S 2. *Geology*.—Systematic geology; dynamical, structural and stratigraphical. The course is designed to form a part of a gen-

eral-culture course, or a preliminary course for those intending to make a specialty of geology. It includes lectures, recitations, laboratory and field work so far as hours will permit. Paleontology is treated as a branch of geology, having especial reference to stratigraphy and correlation. Text-book: Cleland's Geology. 6-7:40. Four semester-hour credits. Dr. RESSER.

S 3. *Principles of Geography*.—The course considers the phenomena of the earth as a whole, the interrelations of these phenomena and their influence upon human affairs. It includes a study of the general geographical principles, including those of physiography and climate, and their application. At 5:10. Two semester-hour credits. Dr. RESSER.

GERMAN

S IVa. *Conversation and Rapid Reading*.—This course is open to students who have had one year of college German or its equivalent. Three semester-hour credits. At 5:10. Professor SCHMIDT.

S IVb. *A continuation course extending beyond the regular session of the Summer School*.—Three semester-hour credits. Professor SCHMIDT.

HISTORY

S 9a. *American History*.—The period of discovery; history of the United States to the administration of Andrew Jackson. At 5:10. Three semester-hour credits. Assistant Professor CHURCHILL.

S XXIV. *Revolutionary Europe, 1789-1815*.—A study of the important transitions—political, social, economic and intellectual—that took place during the era of the French Revolution and of the domination of Napoleon. At 7:45 a. m. Three semester-hour credits. Assistant Professor KAYSER.

S 27. *Latin-American History*.—The colonization, development and present conditions of the Latin-American countries. At 6. Three semester-hour credits. Assistant professor CHURCHILL.

HOME ECONOMICS

S I. *Food and Nutrition*.—A study of the food factors, the principles of cookery, the cost and nutritional value of foods, and menu planning. At 11:15. Two semester-hour credits. Miss KUNDERT.

S II.—*Food and Nutrition*.—Parallel with Course S I. At 5:10. Two semester-hour credits. Miss KUNDERT. (June 27-Aug. 6.)

S VII. *Textiles and Sewing*.—A brief study of fibers and fabrics, the use and care of a sewing machine, various stitches and seams, the use of commercial patterns, and elementary design. At 9:15. Two semester-hour credits. Miss KUNDERT.

LIBRARY SCIENCE

S 1a. *Principles of Library Science*.—This course is designed to cover the general principles of library science with special emphasis on the elements of cataloguing. Three semester-hour credits. At 6. Professor SCHMIDT.

S 1b. A continuation course extending beyond the regular session of the Summer School will be offered in cataloguing, the elementary principles of classification, and shelf listing. Three semester-hour credits. Professor SCHMIDT.

S XIIa. *Advanced Cataloguing and Classification*.—This course is open to students who have had courses S 1a and S 1b, or their equivalent in practical library work. Three semester-hour credits. At 6:50. Professor SCHMIDT.

S XIIb. A continuation course extending beyond the regular session of the Summer School will be offered in special problems in library administration and science. Three semester-hour credits. Professor SCHMIDT.

MATHEMATICS

S 4a. *College Algebra*.—Bowser's College Algebra. Ratio and proportion. Chapter XVI to the end of the book. At 6. Three semester-hour credits. Assistant Professor HODGKINS.

S 4b. *Plane Trigonometry*.—Crocket's Trigonometry. All of plane trigonometry. At 5:10. Two semester-hour credits. Assistant Professor HODGKINS.

S 6b. *Solid Geometry*.—Two semester-hour credits. At 10:15. Professor ERWIN.

S 9a. *Plane and Spherical Trigonometry*.—This course is offered primarily for students who have had Plane Trigonometry. Three semester-hour credits. At 6. Professor ERWIN.

S 9b. *Analytic Geometry*.—This course is offered to students who have had Plane and Spherical Trigonometry. Three semester-hour credits. At 5:10. Professor ERWIN.

NATURE STUDY

S 1. *Nature Study*.—A practical course on mammals, birds, reptiles, and other animal forms for elementary school teachers. Lectures, slides, field work and readings. At 11:15. Two semester-hour credits. Dr. SHUFELDT.

PHILOSOPHY AND PSYCHOLOGY

S 1. *General Psychology*.—A brief introductory course. At 10:15. Two semester-hour credits. Assistant Professor METCALF.

S 2. *General Psychology*.—A study of the principal facts and laws of the mental life. At 5:10. Three semester-hour credits. Assistant Professor METCALF.

S 3. *Logic*.—The principles of deductive and inductive inference. At 9:15. Two semester-hour credits. Professor RICHARDSON.

S 4. *Logic*.—An analysis of the fundamental concepts of logic; induction and deduction; the nature and value of hypotheses; logical analysis. At 6. Three semester-hour credits. Mr. HANKIN.

S XXIII. *Introduction to Philosophy*.—This course is intended to give a general survey of the subject for beginners. At 7:45 a. m. Two semester-hour credits. Professor RICHARDSON.

S 27. *Contemporary Philosophy*.—(To be given from August 9 to September 18, following course S XXIII, if the demand justifies.) At 7:45 a. m. Two semester-hour credits. Professor RICHARDSON.

S XXXII. *Philosophy of Freedom*.—Freedom and determinism; freedom and responsibility; freedom in organized society; freedom and legal restrictions. At 6:50. Three semester-hour credits. Mr. HANKIN.

PHYSICS

S 2a and S 2b. *Laboratory Physics*.—The schedules of experiments are arranged to parallel courses S 3a and S 3b respectively, but different schedules may be arranged in special cases. Two semester-hour credits for either course. 7-9. Mr. CHENEY.

S 3a. *Introductory General Physics*.—Mechanics, Heat, and Electrostatics. At 5:10. Three semester-hour credits. Professor BROWN.

S 3b. *Introductory General Physics*.—Magnetism and Electricity, Sound, and Light. At 6. Three semester-hour credits. Professor BROWN.

POLITICAL SCIENCE

S 1a. *Government of the United States*.—The introductory course. At 6. Three semester-hour credits. Professor HILL.

S 21. *The Government of England and France*.—At 11:15. Two semester-hour credits. Professor HILL.

S 28. *Leading American Treaties*.—At 5:10. Three semester-hour credits. Professor HILL.

S 30. *International Law*.—At 4. Three semester-hour credits. Professor HILL.

ROMANCE LANGUAGES

French

S 2a. *First-Year Course*.—Essentials of French grammar, drill in pronunciation; oral and written composition; translation of modern French prose. For beginners. Fraser and Squair's French Grammar (Heath). At 6. Three semester-hour credits. Mr. PROTZMAN.

S 2b. *First-Year Course*.—(Second Semester.)—Open to students who have had one year of high school French or one semester of college French. At 5:10. Three semester-hour credits. Mr. PROTZMAN.

S 4a. *Second-Year Course*.—Review of French Grammar. Fraser and Squair's French Grammar (Heath); oral and written composition; translation of modern French prose. Open to students who have received credit for one year of college French, or its equivalent. At 6:50. Three semester-hour credits. Mr. PROTZMAN.

S 7. *Conversation and Composition*.—Open to students who have had one year of college French or its equivalent. At 5:10. Two semester-hour credits. Miss MARET.

Spanish

S 2a. *First-Year Course*.—Elements of Spanish Grammar; drill in pronunciation; oral and written composition; translation of modern Spanish prose. Hills and Ford's First Spanish Course (Heath). At 5:10. Three semester-hour credits. Professor DOYLE.

S 2b. *First-Year Course*.—(Second Semester.)—Open to students who have had one year of high school Spanish or one semester of college Spanish. At 6. Three semester-hour credits. Professor DOYLE.

S 4a. *Second-Year Course*.—Review of grammar; composition; translation of modern Spanish prose and poetry; collateral reading. At 6:50. Three semester-hour credits. Professor DOYLE.

THE MEDICAL SCHOOL FACULTY

The names are arranged in the several groups in the order of assignment.

PRESIDENT OF THE UNIVERSITY

WILLIAM MILLER COLLIER, L. H. D., D. C. L., LL. D.

DEAN OF THE MEDICAL SCHOOL

WILLIAM CLINE BORDEN, M. D.

Professor of Surgery

Lieutenant-Colonel, Medical Corps, United States Army. Retired; Consulting Surgeon, Casualty Hospital; *Surgeon-in-Chief to The George Washington University Hospital and Dispensary.*

2306 Tracy Place

PROFESSORS EMERITI

D. KERFOOT SHUTE, A. M., M. D.

Clinical Professor of Ophthalmology, Emeritus

HENRY CRECY YARROW, M. D.

Professor of Dermatology, Emeritus

WILLIAM K. BUTLER, A. M., M. D.

Professor of Ophthalmology, Emeritus

PROFESSORS

GEORGE NICHOLAS ACKER, A. M., M. D.

Professor of Pediatrics

Physician to the Children's Hospital; Consulting Physician to the Episcopal Eye, Ear and Throat Hospital and to the Lutheran Infirmary. *Pediatrician-in-Chief to the George Washington University Hospital and Dispensary.*

913 16th Street

STERLING RUFFIN, M. D.

Professor of Medicine

Visiting Physician to the Columbia Hospital for Women; Consulting Physician to the Government Hospital for the Insane; *Physician-in-Chief to The George Washington University Hospital and Dispensary.*

The Connecticut

CHARLES WILLIAMSON RICHARDSON, M. D., Sc. D.

Professor of Laryngology, Rhinology, and Otology

Laryngologist to Children's Hospital; to the Episcopal Eye, Ear and Throat Hospital, and to the Washington Hospital for Foundlings; *Laryngologist-in-Chief to The George Washington University Hospital and Dispensary.*

1317 Connecticut Avenue

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Professor of Gynecology

Gynecologist to the Columbia Hospital for Women; Gynecological Surgeon, Government Hospital for the Insane; *Gynecologist-in-Chief to The George Washington University Hospital and Dispensary.*

The Rochambeau

RANDOLPH BRYAN CARMICHAEL, M. D.

Professor of Dermatology

Dermatologist to the Garfield Memorial Hospital; the Providence Hospital; the Washington Hospital for Foundlings; the Central Dispensary and Emergency Hospital; Washington City Orphan Asylum; Government Hospital for Insane; Bruen Home, etc. *Dermatologist to The George Washington University Hospital and Dispensary.*

818 17th Street

FRANCIS RANDALL HAGNER, M. D.

Professor of Genito-Urinary Surgery and Venereal Diseases

Genito-Urinary Surgeon to the Garfield Memorial Hospital; *Chief of the Genito-Urinary Clinic, The George Washington University Hospital and Dispensary.*

The Farragut

WILLIAM ALANSON WHITE, M. D.

Professor of Psychiatry and Clinical Professor of Neurology

Superintendent of St. Elizabeth's Hospital, District of Columbia; Lecturer on Psychiatry, U. S. Army Medical School and U. S. Navy Medical School.

St. Elizabeth's Hospital

OSCAR BENWOOD HUNTER, A. B., A. M., M. D.

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Consulting Pathologist to the Casualty Hospital; *Pathologist to The George Washington University Hospital and Dispensary.*

31 East Oxford Street, Chevy Chase

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922 17th Street N. W.

EDWARD URBANE REED, M. D.

Commander, Medical Corps, U. S. Navy

Professor of Tropical Medicine

Naval Medical School

HURON WILLIS LAWSON, S. M., M. D.

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1706 Rhode Island Avenue

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Professor of Dietetics, Associate in Medicine, and Supervisor of Medical Clinics

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Attending Physician, The George Washington University Dispensary.

3509 14th Street

THOMAS CHARLES MARTIN, Ph. D., M. D.

Professor of Proctology

The Rochambeau

HARRY S. BERNTON, A. B., M. D.

Professor of Medical Jurisprudence

Director of Child Welfare, District of Columbia.

1333 G Street

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Associate Ophthalmologist, The Episcopal Eye, Ear and Throat Hospital; Garfield Memorial Hospital; Columbia Hospital for Women; and Children's Hospital.

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312 G Street N. E.

CUSTIS LEE HALL, M. D.

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1408 Chapin Street

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St. Elizabeth's Hospital

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1639 W Street S. E.

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Major Medical Corps U. S. Army, Retired. In charge Medical Corps Unit, Reserve Officer's Training Corps.

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2139 Wyoming Avenue

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, M. D.

Professor of Military Surgery

Colonel, Medical Corps, U. S. Army.

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The Rochambeau

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901 16th Street

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901 16th Street

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1826 R Street

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The Farragut

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The Valois

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The Rockingham

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The Wyoming

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The Rochambeau

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The Cecil

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1738 M Street N. W.

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1545 I Street

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1219 Vermont Avenue

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722 18th Street N. W.

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The Brunswick

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The Alabama

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*Clinical Instructor in Medicine*Medical Superintendent, Tuberculosis Hospital.
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Instructor in Medicine

1801 K Street

SAMUEL BOYCE POLE, M. D.

Clinical Instructor in Laryngology and Otology

The Rochambeau

NELSON DUVAL BRECHT, M. D.

Instructor in Gynecology

609 22d Street

WILLIAM BINFORD KING, A. B.

Instructor in Anatomy

Virginia Highlands, Va.

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Instructor in Psychiatry and Clinical Neurology

Clinical Director, St. Elizabeth's Hospital; Consulting Psychiatrist and Neurologist to the Women's Dispensary.

CHARLES O. KNOTT, M. D.

*Clinical Instructor, Genito-Urinary Diseases*Attending Genito-Urinary Surgeon, George Washington University Dispensary.
1006 I Street S. E.

GEORGE G. MORRIS, M. D.

Clinical Instructor in Surgery

Attending Surgeon, Emergency Hospital Dispensary.

1913 14th Street

EARL GRIFFITH BREEDING, A. B., M. S., M. D.

Clinical Instructor in Laryngology and Otology

Assistant Laryngologist and Otologist, Episcopal Eye, Ear and Throat Hospital;
Attending Laryngologist and Otologist, George Washington University Dis-
pensary.

Stoneleigh Court

CYRUS W. CULVER, M. D., C. M.,

Clinical Instructor in Obstetrics

Director, Out-Patient Obstetric Service; Attending Obstetrician, George Wash-
ington University Dispensary.

1720 M Street

HERBERT HERMAN SCHOENFELD, M. D.

Clinical Instructor in Surgery

Secretary, Medical Staff, Washington Diet Association; Attending Surgeon,
Emergency Hospital Dispensary.

Wardman Park Hotel

ROBERT S. BEALE, M. D.

Clinical Instructor in Medicine

Attending Physician, Contagious Ward, Garfield Memorial Hospital.

1318 19th Street

AUGUSTUS CLAGETT GRAY, M. D.

Instructor in Surgery

Attending Gynecologist, Columbia Hospital Dispensary.

Stoneleigh Court

LYLE MILLAN MASON, M. D.

Clinical Instructor in Medicine

Attending Physician, George Washington University Dispensary.

817 15th Street

GEORGE NICHOLAS ACKER, 2D, B. S., M. D.

Instructor in Medicine

Attending Physician to The George Washington University Dispensary.

2015 Q Street

WATSON WILLIAM ELDRIDGE, M. D.

Clinical Instructor in Medicine

Internist to St. Elizabeth's Hospital.

St. Elizabeth's Hospital

PAUL STERLING PUTZKI, M. D.

Instructor in Surgery

Attending Surgeon, Casualty Hospital; Attending Surgeon, Woman's Evening
Clinic.

911 16th Street

PROFESSIONAL DEPARTMENTS

ELLIOTT MUSE CAMPBELL, M. D.

Instructor in Materia Medica and Therapeutics

Attending Physician, University Dispensary.

3103 Mt. Pleasant Street

FREDERICK C. SCHREIBER, M. D.

Instructor in Laryngology and Otology

Assistant Laryngologist to the Episcopal Eye, Ear and Throat Hospital.

The Montana

RUSSELL KUHNER HOLLINGSWORTH, M. D.

Clinical Instructor in Medicine

Attending Physician, Child's Welfare; Attending Surgeon, Providence Hospital Dispensary.

2115 Nichols Avenue S. E.

JACOB KOTZ, M. D.

Clinical Instructor in Surgery

Attending Gynecologist, Emergency Hospital Dispensary; Attending Surgeon, George Washington University Dispensary.

Medical Science Building

HARRY A. ONG, M. D.

Clinical Instructor in Pediatrics

Director, Children's Hospital Dispensary.

1768 Columbia Road

RALPH S. PENDEXTER, M. D.

Instructor in Ophthalmology

The Champlain Apts.

HARRY PRICE, M. D.

Clinical Instructor in Genito-Urinary Surgery

Attending G. U. Surgeon, George Washington University Hospital.

1315 Rhode Island Avenue

F. AUGUST REUTER, M. D.

Clinical Instructor in Medicine

Assistant Interne, St. Elizabeth's Hospital.

St. Elizabeth's Hospital

EUGENE A. TAYLOR, M. D.

Instructor in Laryngology

Attending Surgeon, Episcopal Eye, Ear and Throat Hospital.

1029 Vermont Avenue

LLOYD H. ZIEGLER, A. B., A. M., M. D.

Clinical Instructor in Psychiatry

Junior Assistant, St. Elizabeth's Hospital.

St. Elizabeth's Hospital

JAMES A. CAHILL, JR., M. D.

Instructor in Surgery

Associate Surgeon, Providence Hospital; Associate in Gynecology, Georgetown University Hospital.

1940 Biltmore Street

NATHAN NORMAN SMILER, M. D.

Clinical Instructor in Surgery

Member, Dispensary Staff, Emergency Hospital; Attending Physician, Child's Welfare; Attending Surgeon, George Washington University Dispensary.

1103 P Street

MAURICE A. SELINGER, M. D.

Clinical Instructor in Medicine

Assistant Attending Physician, Children's Hospital; Associate Attending Physician, Garfield Memorial Hospital.

1120 Columbia Road

BOYCE RICHARDSON BOLTON, M. D.

Clinical Instructor in Laryngology and Otology

Episcopal Ear, Nose and Throat Hospital

THE STAFF OF THE GEORGE WASHINGTON UNIVERSITY
HOSPITAL AND DISPENSARY

HOSPITAL

STERLING RUFFIN, M. D.	<i>Physician-in-Chief</i>
BUCKNER MAGILL RANDOLPH, M. D.	<i>Associate Physician</i>
COURSEN BAXTER CONKLIN, M. D.	<i>Associate Physician</i>
WILLIAM CLINE BORDEN, M. D.	<i>Surgeon-in-Chief</i>
CHARLES STANLEY WHITE, M. D.	<i>Associate Surgeon</i>
DANIEL LERAY BORDEN, M. D.	<i>Associate Surgeon</i>
JOHN WESLEY BOVEE, M. D.	<i>Gynecologist-in-Chief</i>
HURON WILLIS LAWSON, M. D.	<i>Obstetrician-in-Chief</i>
GEORGE NICHOLAS ACKER, M. D.	<i>Pediatrician</i>
EDGAR PASQUAL COPELAND, M. D.	<i>Associate Pediatrician</i>
CUSTIS LEE HALL, M. D.	<i>Orthopedic Surgeon</i>
FRANCIS RANDALL HAGNER, M. D.	<i>Genito-Urinary Surgeon</i>
HOMER GIFFORD FULLER, M. D.	<i>Associate Genito-Urinary Surgeon</i>
ADAM KEMBLE, M. D.	<i>Associate Genito-Urinary Surgeon</i>
RANDOLPH BRYAN CARMICHAEL	<i>Dermatologist</i>
CHARLES WILLIAMSON RICHARDSON, M. D.	<i>Laryngologist</i>
WILLIAM THORNHILL DAVIS, M. D.	<i>Ophthalmologist</i>
EDWARD GRANT SEIBERT, M. D.,	<i>Associate Laryngologist and Ophthalmologist</i>
ARTHUR C. CHRISTIE, M. D.	<i>Roentgenologist</i>
THOMAS A. GROOVER, M. D.	<i>Associate Roentgenologist</i>
EDWIN A. MERRITT, M. D.	<i>Associate Roentgenologist</i>
HENRY W. KEARNEY, M. D.	<i>Anaesthetist</i>
CLINE N. CHIPMAN, M. D.	<i>Associate Anaesthetist</i>
CHARLES W. HYDE, M. D.	<i>Associate Anaesthetist</i>
OSCAR BENWOOD HUNTER, M. D.	<i>Pathologist</i>
TOMAS CAJIGAS, M. D.	<i>Director of the Clinical Laboratory</i>
AURALEE SIGAPOOSE, R. N.	<i>Laboratory Technician</i>
B. B. THOMPSON, R. N.	<i>Superintendent of Nurses and Principal of the Training School for Nurses</i>
JOHN BRUCE COPPING	<i>Superintendent</i>

DISPENSARY

STERLING RUFFIN, M. D.	<i>Physician-in-Chief</i>
WILLIAM CLINE BORDEN, M. D.	<i>Surgeon-in-Chief</i>
JOHN WESLEY BOVEE, M. D.	<i>Gynecologist-in-Chief</i>
HURON WILLIS LAWSON, M. D.	<i>Obstetrician-in-Chief</i>
ALBERT ELWOOD PAGAN, M. D.	<i>Director of the Dispensary</i>

Medicine

WILLIAM CABELL MOORE, M. D.	Attending Physician
WILLIAM JOHNSTON MAILLORY, M. D.	Attending Physician
ROBERT S. TRIMBLE, M. D.	Attending Physician
THOMAS LINVILLE, M. D.	Attending Physician
FRANK A. HORNADAY, M. D.	Attending Physician
LYLE MILLAN MASON, M. D.	Attending Physician
GEORGE NICHOLAS ACKER, 2D, M. D.	Attending Physician

Surgery

TRUMAN ABBE, M. D.	Attending Surgeon
JOHN POTTS FILLERBROWN, M. D.	Attending Surgeon
DANIEL L. BORDEN, M. D.	Attending Surgeon
JACOB KOTZ, M. D.	Attending Surgeon
CUSTIS L. HALL, M. D.	Orthopedic Surgeon

Genito-Urinary and Skin Diseases

ADAM KEMBLE, M. D.	Attending Surgeon
CHARLES O. KNOTT, M. D.	Attending Surgeon
HARRY PRICE, M. D.	Attending Surgeon

Gynecology

ALBERT ELWOOD PAGAN, M. D.	Attending Gynecologist
HOWARD FRANCIS KANE, M. D.	Attending Gynecologist
ELIJAH WHITE TITUS, M. D.	Attending Gynecologist

Obstetrics

CYRUS W. CULVER, M. D.,	Attending Obstetrician, Out-Patient Service
	Eye, Ear, Throat and Nose

WILLIAM T. DAVIS, M. D.	Ophthalmologist
EDWARD GRANT SEIBERT, M. D.	Laryngologist and Ophthalmologist
ALBERT PERKINS TIBBETS, M. D.,	Attending Laryngologist and Otologist
SAMUEL BOYCE POLE, M. D.	Attending Laryngologist and Otologist
EARL GRIFFITH BREEDING, M. D.,	Attending Laryngologist and Otologist

Pediatrics

COURSEN BAXTER CONKLIN, M. D.	Attending Pediatrician
JOHN CARL ECKHART, M. D.	Attending Pediatrician

Neurology

JOHN EDWARD LIND, M. D.	Attending Neurologist
JOSEPH S. STOUT, M. D.	Attending Neurologist

Roentgenology

ARTHUR C. CHRISTIE, M. D. _____ *Roentgenologist*THOMAS A. GROOVER, M. D. _____ *Associate Roentgenologist*

Dentistry

ALLAN S. WOLFE, D. D. S. _____ *Attending Oral Surgeon*RALPH L. MORRISON, D. D. S. _____ *Attending Dental Surgeon*

Pathology

OSCAR BENWOOD HUNTER, M. D. _____ *Pathologist*

Laboratory

TOMAS MOREAU CAJIGAS, M. D. _____ *Director*AURALEE SIGAFOOSE, R. N. _____ *Technician*

Medical Building

ANNA ELIZABETH SELLNER _____ *Secretary to the Dean*WILLIAM BINFORD KING _____ *Librarian*VIOLET RAISON _____ *Curator of the Museum*ELMER SCHATZ _____ *Superintendent of the Building*

HISTORICAL

The Medical School of the George Washington University, in chronological order of establishment, is the eleventh Medical School in the United States. The first course of lectures began in March, 1825. For many years the school was known as the National Medical College; subsequently as the Department of Medicine of the Columbian University. By virtue of an act of Congress approved January 23, 1904, the Columbian University changed its name to "The George Washington University."

In order to increase the facilities for bedside and clinical teaching, the University Hospital and the University Dispensary were established in 1898 and made a part of the Medical School. In 1902 the old Medical School Building, in which the exercises had been held since 1867, gave place to the present large and commodious structure.

EDUCATIONAL POSITION

The Medical School of the University has for several years been a member of the Association of American Medical Colleges. It is one of the medical colleges designated as "Class A," by the American Medical Association, and it is accredited for all its work by the Combined (Royal) Medical Examining Boards in England.

The degree of M. D. given by this University admits the holder to all governmental examinations, including those for the Medical Corps of the United States Army and Navy and the Public Health

Service and, with evidence of one year of post graduate hospital work in those States which require hospital internship, will admit a graduate of our Medical School to all state examinations.

The alumni of this school are largely represented in all public services, and have been highly successful in passing the rigid examinations given by them. These facts guarantee the character of the work done by the School and insure its students and graduates all the advantages which accrue from such association and recognition.

BUILDINGS AND OTHER FACILITIES

All the buildings adjoin each other and consist of the Medical School Building, the University Hospital and the University Dispensary. They are most advantageously situated in the heart of the city within one block of both systems of car lines. As the Hospital and Dispensary adjoin the School, their clinical facilities are easily accessible to the students, and the pathological material and the material for clinical microscopy and clinical chemistry afforded by the Hospital and Dispensary are directly used in the School laboratories.

Medical School Building.—A modern, commodious, five-story structure with spacious, well-lighted, well-ventilated lecture and class rooms, laboratories, and students' rooms, equipped with steam heat, gas, electricity, and all modern improvements.

Laboratories.—Five in number (for anatomy, physiological and clinical chemistry, histology and embryology, physiology and pharmacology and bacteriology and pathology) are fully equipped with the most approved appliances, so that students may adequately pursue the laboratory courses and acquire the technical skill necessary in modern clinical and research work.

Medical Library.—Open for study and consultation from 9 a. m. to 4 p. m., with a librarian in charge. It contains at present more than 2,000 volumes, and provision is made to add to it as published the important new works on medicine. The standard medical periodicals are regularly received. The library is an excellent working collection, as it affords opportunity to read up adequately on the subjects presented in the courses.

For purposes of research and study the unequalled resources of the great Library of the Surgeon General of the Army are available to all students and teachers.

Pathological Museum.—Contains many valuable and interesting specimens. Their number is increased by additions from time to time. These specimens are particularly valuable to the students as illustrating the changes produced by disease.

No dental or arts courses are conducted in the Medical School,

and students in medicine have the advantage of being instructed by teachers whose interests are primarily medical and of not having to be in classes or laboratories with students pursuing other courses.

ADVANTAGE OF LOCATION FOR THE STUDY OF MEDICINE

The city of Washington has nearly a half million inhabitants, providing abundant clinical material to the hospitals, which have an aggregate of over four thousand beds. In these hospitals clinical instruction, in addition to that in the University Hospital, is given by members of the faculty.

The *great libraries and museums* connected with the various Government institutions afford unparalleled facilities for study.

The Library of the Surgeon General's office of the United States Army is the most complete medical library in the world, and all leading medical periodicals of the world are subscribed for. There is also the Library of Congress, the public Library, and the many excellent libraries of the various government offices. All the facilities of these great libraries are open to *medical students*.

The *Army Medical Museum* affords an unrivalled opportunity for studying the conditions met with in military and general surgery. It has on exhibition a collection of anatomical and pathological specimens unequalled by any other museum. The other great government museums—the Museum of Hygiene and the National Museum—as well as the Smithsonian Institution, the Fish Commission, the Botanic Gardens and the Department of Agriculture, all afford opportunities for study both in medicine and its collateral sciences.

In account of the many medical and scientific facilities of this city, the *Army and Navy Medical Schools*, with the large *Army and Navy General Hospitals*, have been located here.

Aside from the special advantages offered for the study of medicine, the cosmopolitan character of the city of Washington, its climate (not excessively cold in winter), its beauty, and its interests, which, as it is the seat of the General Government, are broad and national, make it an ideal place for a medical student to pass his four years of study.

ADMISSION

The requirements for admission to the Medical Schools are as follows:

Candidates for matriculation must present creditable certificates of good moral character from two reputable persons.

The educational requirements for admission are:

A. The minimum requirements for admission are fifteen units of secondary school work and two years of college work made up as follows:

SECONDARY SCHOOL UNITS

Credit may be granted for the subjects shown in the following list and for any other subjects counted by a standard accredited high school as a part of the requirements for its diploma, provided that at least eleven units must be offered in groups I-V:

<i>Subjects</i>	<i>Units* Required</i>	
Group I, English—		
Literature and composition	3-4	3
Group II, Foreign Languages—		
Latin	1-4	2+
Greek	1-3	
French or German	1-4	
Other foreign languages	1-4	
Group III, Mathematics—		
Elementary algebra	1	1
Advanced algebra	$\frac{1}{2}$ -1	1
Plane geometry	1	
Solid geometry	$\frac{1}{2}$	
Trigonometry	$\frac{1}{2}$	
Group IV, History—		
Ancient history	$\frac{1}{2}$ -1	1
Medieval and modern history	$\frac{1}{2}$ -1	
English history	$\frac{1}{2}$ -1	
American history	$\frac{1}{2}$ -1	
Civil government	$\frac{1}{2}$ -1	
Group V, Science—		
Botany	$\frac{1}{2}$ -1	
Zoology	$\frac{1}{2}$ -1	
Chemistry	1	
Physics	1	
Physiography	$\frac{1}{4}$ -1	
Physiology	$\frac{1}{2}$ -1	
Astronomy	$\frac{1}{2}$	
Geology	$\frac{1}{2}$ -1	

* A unit is the credit value of at least thirty-six weeks' work of four or five recitation periods per week, each period to be not less than 45 minutes. A point is a subject pursued through one-half the above time. Two points may be considered the equivalent of one unit.

† Both of the required units of foreign language must be of the same language, but the two units may be presented in any one of the languages specified.

<i>Subjects</i>	<i>Units Required</i>
Group VI, Miscellaneous—	
Agriculture	1-2
Bookkeeping	$\frac{1}{2}$ -1
Business law	$\frac{1}{2}$ -1
Commercial geography	$\frac{1}{2}$ -1
Domestic science	1-2
Drawing, freehand and mechanical	$\frac{1}{2}$ -2
Economics and economic history	$\frac{1}{2}$ -1
Manual training	1-2
Music: Appreciation and harmony	1-2

COLLEGE WORK

	<i>Semester hours required</i>
Chemistry	12
Physics	8
Biology	8
English	6
Electives	26

Chemistry.—Of the twelve semester hours required, eight hours must be made up of general inorganic chemistry (including four semester hours of laboratory work). Qualitative analysis may be counted as general inorganic chemistry. The remaining four semester hours may consist of additional work in general chemistry or of work in analytic or organic chemistry. After September 1, 1922, the four semester hours must consist of organic chemistry.

Physics.—The eight semester hours required must include at least two semester hours in laboratory work. It is urged that this course be preceded by a course in trigonometry.

Biology.—Eight semester hours required, of which four must consist of laboratory work. This requirement may be satisfied by a course of eight semester hours in either general biology or zoology or by a course of four semester hours each in zoology and botany, but not by botany alone.

English Composition and Literature.—The usual introductory college course of six semester hours, or its equivalent, is required.

Electives.—It is recommended that the twenty-six semester hours required include a modern foreign language, comparative vertebrate anatomy, social science and psychology.

A semester hour is the credit value of one-half year's work consisting of one lecture or recitation period per week each period

to be not less than fifty minutes net; at least two hours of laboratory work to be considered as the equivalent of one lecture or recitation period; and the year to be not less than thirty-three weeks of actual work.

B. A Bachelor's degree from an approved college or university, provided the holder of such degree presents satisfactory credentials, covering college work in chemistry, physics, biology and English as outlined in the preceding paragraphs.

An examination is given by the University in the latter part of May and September of each year to students who are deficient in whole or part of the subjects required for entrance to the Pre-medical Course. Candidates desiring examination must submit an application for the examination before the first of the month in which they desire to be examined.

Certificates from reputable instructors recognized by the State Board of Medical Examiners duly authorized by law or by the Superintendent of public instruction in States having no examining board may be accepted in lieu of any part of the examination.

The laws relating to the preliminary educational qualifications required of physicians differ in many of the States, and candidates are advised that if they meet the premedical and other requirements of this School they will be able to comply with these legal demands of all State Examining Boards in the United States. Any standard lower than that of this institution will not meet the requirements of all the States in the Union.

SPECIAL COURSE FOR ADMISSION TO THE MEDICAL SCHOOL

Courses are offered by the University to meet the requirement in two years of college work necessary to enter the freshman class of Medicine.

<i>First Year</i>	SEMESTER HOURS
Chemistry 1 and 2 _____	10
Zoology 3 _____	8
English 1 or 2 _____	6
Electives (including preferably French or German) _____	6
Total _____	30

<i>Second Year</i>	SEMESTER HOURS
Physics 3 and 4.....	10
Chemistry 8.....	6
Electives (other than Natural Science).....	14
Total	30

**COURSES AND DEGREES OFFERED BY THE UNIVERSITY IN
ADDITION TO OR IN COMBINATION WITH THE COURSE
FOR THE DEGREE OF DOCTOR OF MEDICINE**

The University offers a six-year combination course, by which a student may obtain the degree of Bachelor of Science in Medicine and Doctor of Medicine, and a seven-year course for the degrees of Bachelor of Arts and Doctor of Medicine.

ADMISSION TO COLUMBIAN COLLEGE

Applicants for admission to the Freshman Class in Columbian College for the combined courses leading to the degrees of Bachelor of Arts or Bachelor of Science in Medicine and Doctor of Medicine must meet the general admission requirements of fifteen units. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. *The fifteen units of the entrance requirements must include English, 3 units; Mathematics, 2½ units, and one of the following languages: Latin, Greek, French, German, or Spanish 2 units.* The remainder of the requirement is elective and may be satisfied in general by any accredited secondary school subjects.

**SIX YEAR COURSE FOR THE DEGREES OF BACHELOR OF
SCIENCE IN MEDICINE AND DOCTOR OF MEDICINE**

Regular students in this course will complete in two years the prescribed work in college, at least twelve semester hours of which must be taken in Columbian College, and the four-year course in the Medical School. On the completion of this six-year course the student will receive at the same time the degrees of Bachelor of Science in Medicine and Doctor of Medicine. The curriculum for the combined six-year course is as follows:

a. Columbian College

Freshman Year

	SEMESTER HOURS
Chemistry 1 and 2	10
English 1 or 2	6
French or German	6
Mathematics	6
Zoology 3	8
Total	36

Sophomore Year

	SEMESTER HOURS
Chemistry 8	6
French, German or Spanish	6
Philosophy (including Psychology)	6
Physics 3 and 4	10
Zoology 2	6
Electives	2
Total	36

b. Medical School

The four-year course for the degree of Doctor of Medicine.

SEVEN YEAR COURSE FOR THE DEGREES OF BACHELOR OF ARTS AND DOCTOR OF MEDICINE

Regular students in this course will complete at least 90 semester hours as prescribed in Columbian College and the first-year course in the Medical School. On completion of the prescribed 90 semester hours of college work and the first year of the regular course in Medicine, the student will receive the degree of Bachelor of Arts.

The hours of prescribed work, at least 12 semester hours of which must be taken in Columbian College, are as follows:

Columbian College:

SUBJECT	SEMESTER HOURS
Zoology 3	8
Chemistry 1, 2 and 8	16
English	6
Modern Languages, preferably French or German	12
Mathematics	6

Columbian College (*Continued*):

SUBJECT	SEMESTER HOURS
Physics 3 and 4	10
Philosophy (including Psychology)	6
Electives (including not to exceed 30 semester hours in Medicine)	56
Total	120

ADMISSION OF STUDENTS FROM OTHER SCHOOLS

Students who have satisfactorily attended one or more terms at any other Class A medical school, and who have the necessary preliminary educational requirements, may be admitted to advanced standing.

Students who have been in attendance upon an Arts course in other accredited colleges or universities may be admitted to advanced standing in any of the premedical courses offered by the University upon examination or upon presentation of properly certified evidence of satisfactory completion of work for which credit is asked.

Students, approved by the Dean, not candidates for the degree of Doctor of Medicine, may be admitted as special students to any of the courses, provided they have the educational attainments which will enable them to pursue properly the studies they elect.

ACADEMIC YEAR

The *Academic Year* begins on the last Wednesday in September. It is divided into two half-years of four months each.

The term of study for the degree of Doctor of Medicine consists of four years of thirty-two weeks each, exclusive of vacations and holidays. The next session, the ninety-ninth, begins September 28, 1921, and ends June 7, 1922.

Students must register promptly at the beginning of the session, in order that their time of study shall count as a full year.

SYSTEM OF INSTRUCTION

Instruction is carried on by laboratory work, lectures, recitations, bedside instruction, and hospital and dispensary clinics. Particular stress is laid upon laboratory work and clinical teaching. The clinical material of the University Hospital and Dispensary is utilized to the fullest extent, as the Hospital, the Dispensary, and the Medical School are under the same control. Additional

clinics are given in other hospitals in the city to which members of the faculty are attached.

While the greatest stress is laid upon laboratory work and clinical teaching, it is recognized that the facts so obtained must be correlated and shown in their due relation to each other and to the science of medicine. To this end didactic lectures are maintained in certain branches, as they have been found necessary to give a systematic and comprehensive idea of the larger subjects is medicine.

The object sought throughout the courses is to thoroughly ground the students in the knowledge which is necessary to a practitioner of medicine. No particular attempt is made to graduate specialists in any subject. It is believed that the four years allowed for medical study are no more than sufficient time for the adequate preparation of the general practitioner.

The policy adopted by the School is to give a comprehensive, well-graded and well-proportioned course—one that will adequately prepare the graduate to practice general medicine and meet the requirements of State Medical Examining Boards.

ORDER OF INSTRUCTION

The subjects studied in each year are shown in the following table. Major subjects are in italics:

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
<i>Anatomy.</i>	<i>Anatomy.</i>	<i>Medicine.</i>	<i>Medicine.</i>
<i>Histology.</i>	<i>Physiological</i>	<i>Surgery.</i>	<i>Surgery.</i>
<i>Embryology.</i>	<i>Chemistry.</i>	Fractures and	Orthopedics.
<i>Physiology.</i>	<i>Pathology</i>	Dislocations.	Genito-Urinary
<i>Chemistry.</i>	<i>Bacteriology.</i>	Clinical	Diseases.
<i>Ethics.</i>	<i>Materia Medica.</i>	Microscopy.	Military
	<i>Pharmacology.</i>	<i>Obstetrics.</i>	<i>Surgery.</i>
	Minor Surgery.	<i>Therapeutics.</i>	<i>Obstetrics.</i>
	Physical	Roentgenology.	<i>Gynecology.</i>
	Diagnosis.	Anaesthesia.	Laryngology
	Pathological	<i>Gynecology.</i>	and Otology.
	Physiology.	Medical	Ophthalmology
	Hygiene.	Jurisprudence.	Dermatology.
	Psychology.	Clinical	Psychiatry.
		Chemistry.	Pediatrics.
		Dietetics.	Neurology.
		Tropical	Ethics.
		Medicine.	<i>Clinics.</i>
		<i>Clinics.</i>	

The *clinics* above listed comprise the medical, surgical, obstetrical and other clinics given in the third and fourth years, and are as hereafter noted under the announcements of the different clinical subjects.

Students in the medical unit, Reserve Officers' Training Corps, have one additional hour per week of instruction in medico-military subjects.

OUTLINE OF CURRICULUM

HOURS OF REQUIRED WORK IN EACH SUBJECT

(On the basis of 32 actual weeks in each year)

SUBJECT	YEARS	HOURS	
		Totals*† Didactic, Lab. and Clinical	Didactic not to exceed
Anatomy	I	480	60
Anatomy	II	161	30
Anatomy	III	30	30
Histology and Embryology	I	— 671	— 120
		256	60
Chemistry	I	250	90
Chemistry	II	140	30
Physiology	I	— 390	— 120
Physiology	II	120	62
		185	70
Bacteriology	II	— 305	— 133
Pathology	II	144	30
Preventive Medicine and Hygiene	II	292	60
		32	32
Pharmacology	II	— 468	— 122
Materia Medica	II	187	60
		36	12
Therapeutics	III	— 223	— 82
		64	64
Gynecology	III and IV	— 64	— 64
		169	58
Obstetrics	III and IV	— 169	— 58
		192	64
		— 192	— 64
Medicine, including Endocrinology and Dietetics	II, III, IV		
General Medicine		510	152
Clinical Microscopy		48	12
Physical Diagnosis		80	40
Tropical Diseases		12	12
Dermatology and syphilis		93	30
Pediatrics		186	62
Nervous and Mental Diseases		163	54
Medical Jurisprudence		23	23
Clinical Chemistry		48	12
		— 1163	— 401

* The number of hours represents the amount of time each student devotes to the course. In addition to the hours scheduled in the third and fourth years, each student is required to do satisfactorily considerable practical work; he is assigned to cases in hospitals, is required to assist at operations, to attend cases of labor, administer anaesthetics, attend autopsies, and to take the history of cases. Fully 120 hours annually are required to do this unscheduled work.

† Subject to variation.

PROFESSIONAL DEPARTMENTS

SUBJECT	YEARS	HOURS	
		Totals*† Didactic Lab. and Clin.	Didactic not to exceed
Surgery _____	II, III, IV		
General Surgery, including Mi- nor Surgery, Military Surgery, Fractures and Anaesthesia _____		484	148
Röntgenology _____		36	14
Ophthalmology _____		60	18
Otology and Laryngology _____		56	28
Genito-Urinary Surgery _____		60	28
Orthopedics _____		73	24
		— 769	— 260
Grand totals _____		4670	1484

FIRST YEAR SCHEDULE

First Trimester

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	9-1 Chemistry Lecture Laboratory Section
1-5 Histology and Embryology	1-5 Chemistry Lecture Laboratory Section	1-5 Chemistry Lecture Laboratory Section	1-5 Chemistry Lecture Laboratory Section	1-5 Histology and Embryology	9-1 Chemistry Lecture Chemistry Physiology Laboratory Sections
9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	2-3 Physiology Lecture
1-5 Histology and Embryology	1-5 Physiology Lecture Chemistry Physiology Laboratory Sections	1-5 Chemistry Lecture Chemistry Physiology Laboratory Sections	1-5 Histology and Embryology	1-5 Physiology Lecture Chemistry Physiology Laboratory Sections	9-1 Chemistry Lecture Chemistry Physiology Laboratory Sections
9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	9-12 Anatomy	3-3 Physiology Lecture
1-5 Histology and Embryology	1-5 Physiology Lecture Chemistry Physiology Laboratory Sections	1-5 Chemistry Lecture Chemistry Physiology Laboratory Sections	1-5 Histology and Embryology	1-5 Physiology Lecture Chemistry Physiology Laboratory Sections	

Second Trimester

Third Trimester

THIRD YEAR

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8-9 Surgery Lecture					
9-10 Practice of Medicine Lecture	9-10 Therapeutics	9-10 Practice of Medicine Lecture	9-10 Gynecology Lecture	9-10 Practice of Medicine Lecture to Janu- ary 31st	9-12 Clinical Chemistry to January 31st Clinical Microscopy after February 1
10-11 Obstetrics Lecture	10-11 Dietetics to De- cember 31st 11:30-12:30 Obstetrics	10-12 Gynecological Clinic University Hospital or Columbia Hospital Entire class	10:15-11:45 Surgical Clinic Children's Hospital Entire Class	10-11 Therapeutics	
11-12 Practice of Medicine Recitation	11-12	11-12 Obstetrical Clinic Columbia Hospital after February 1st Special Sections	11-12 Obstetrical Clinic Columbia Hospital after February 1st Special Sections	11-12 Surgery Lecture 12:45-1:45 Medical Clinic Emergency Hospital 1 Section	
11-12 Obstetrical Clinic Columbia Hospital after February 1st Special Sections					
12:30-2 Surgical Clinic University Hospital Entire Class	1-2 Surgery Lecture	1-3 Surgical Clinic Emergency Hospital Entire Class	12-1 Surgical Clinic University Hospital Entire Class	1-2 Gynecological Clinic University Hospital 1 Section	1-2 Laryngological and Ophthalmological Clinic University Dispensary 1 Section
2-4 Dietetics Lecture to December 31st Proctology Lecture after January 1st	2-3 Gynecological Clinic Emergency Hospital 1 Section	3-4 Anesthesia Lectures to December 1st Roentgenology after December 1st	1-2 Medical Clinic University Hospital Entire Class	3-3 Pediatrics Lecture to December 31st	1:15-1:45 Neurological Clinic Emergency Hospital 1 Section
4:30-5:30 Tropical Medicine Lecture to De- cember 31st Medical Jurispru- dence after Janu- ary 1st	2:30-3:30 Pediatric Clinic Children's Hospital 1 Section 4-5 Applied Anatomy	4-5 Pediatrics Lecture to December 31st	2:30-4 Pediatric Clinic Children's Hospital 1 Section	4-5 Neurology Lecture	2:15-3:15 Pediatric Clinic Children's Hospital 1 Section 3-5 Medical Clinic University Hospital

FOURTH YEAR

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	8-9 Laryngology to December 31st Dermatology January 1-May 1			8-9 Laryngology to December 31st Dermatology January 1st to May 1st	8-9 Orthopedics Lecture to February 28th Ehlers, two periods, after March 1st
9-10 Practice of Medicine Lecture	9-10-12 Medical Clinic Providence Hospital Half Section	9-10 Practice of Medicine Lecture	9-11 Neurological and Psychiatric Clinic St. Elizabeth's Hospital 1 Section	9-10 Practice of Medicine Lecture to January 31st	9-10-11-30 Medical Clinic Washington Asylum Hospital 1 Section Surgical Clinic Washington Asylum Hospital 1 Section
10-11-12:15 Pediatric Clinic Children's Hospital 1 Section	9-10-12 Surgical Clinic Providence Hospital Half Section	10-15-11:45 Orthopedic Clinic Emergency Hospital 1 Section	9-10:45 Surgical Clinic Emergency Hospital 1 Section	10-10-12:30 Surgical Clinic Garfield Hospital Half Section	
10-10-12:15 Genito-Urinary Clinic Garfield Hospital 1 Section	9-10-10:30 Medical Clinic Tuberculosis Hospital Half Section	10-11:45 Gynecological Clinic Columbia Hospital or University Hospital 1 Section	11-12 Obstetrical Clinic Columbia Hospital to January 31st Special Sections	10-15-12:15 Orthopedic Clinic Children's Hospital 1 Section	
11-12 Obstetrical Clinic Columbia Hospital to January 31st Special Sections	10-10-11:30 Pediatric Clinic Children's Hospital Half Section	11-13 Obstetrical Clinic Columbia Hospital to January 31st Special Sections		10-15-12:15 Pediatric Clinic Children's Hospital Half Section	

12:30-3 Surgical Clinic University Hospital	12-1 Medical Clinic University Hospital 1 Section	12-1 Obstetrics Lecture	1-3 Neuropathology St. Elizabeth's Hospital Entire Class	1-2 Laryngological and Ophthalmological Clinic University Dispensary 1 Section	1-2 Medical Clinic University Hospital 1 Section
3-4 Ophthalmological Clinic Episcopal Eye, Ear, Nose and Throat Hospital Special Sections	1-3 Dermatological Clinic Emergency Hospital 1 Section	1-2 Laryngological Clinic Episcopal Eye, Ear, Nose and Throat Hospital 1 Section	2-4 Medical Clinic St. Elizabeth's Hos- pital to April 1st Entire Class	1-1:45 Dermatological Clinic Emergency Hospital 1 Section	1-1:45 Laryngological Clinic Episcopal Eye, Ear, Nose and Throat Hospital 1 Section
3-3 Practice of Medicine Recitation	1-3 Roentgenological Clinic University Dispensary 1 Section	1-3 Genito-Urinary Clinic Emergency Hospital 1 Section	2-3 Operative Surgery Medical School after April 1st 1 Section	2-3 Obstetrics Lecture	2-3 Surgery Lecture
3-4 Gynecology, Recita- tion and Clinic	2:15-3:15 Infectious Disease Clinic Garfield Hospital 1 Section	2-3 Medical Clinic Garfield Hospital 1 Section	4-5 Psychiatry Clinic St. Elizabeth's Hos- pital to December 31st Entire Class	3-4 Ophthalmology Lec- ture to February 15th	3-5 Medical Clinic University Hospital Entire Class
4-5 Surgery Lecture	3:30-4:30 Medical Clinic Washington Asylum Hospital 1 Section	4-5 Genito-Urinary Surgery Lecture	3-4 Psychiatry Lecture Clinic January 1st to March 31st Entire Class	3-4 Military Surgery Lec- ture February 15th to May 31st	4-5 Pediatric Case Teaching

ANATOMY

GEORGE B. JENKINS, M. D.	Professor
JOHN KONSTANTIN BUTKIEWICZ, M. S., D. D. S.	<i>Prof. of Histology</i>
WILLIAM BINFORD KING, A. B.	Instructor
OTHMAR SOLNITZKY, Ph. D.	Instructor

The work in general anatomy is designed to cover the entire subject in such manner as to afford the student a practical working basis for his later studies in medicine and the work is so correlated and taught as to emphasize the value of relations and functions as well as that of structure.

While constant surveillance is maintained over the student body by the Division, individual work is encouraged and to those men who demonstrate especial fitness, opportunities for advanced work are offered. Research is encouraged and qualified students will be aided in every way possible.

Careful drawings of selected parts are required, frequent demonstrations are given and conferences are held by members of the Division.

The following courses are offered:

(1) *Gross Anatomy.*

This includes the careful dissection and study of the entire body during the first year, excepting the central nervous system. The study of the more difficult parts such as the special sense organs and Viscera is supplemented by the use of models and prepared specimens.

Osteology and Arthrology are studied during dissection, supplemented by a short laboratory course in the study and drawing of prepared specimens.

One laboratory morning a week is given over to a study of the development, the microscopic and macroscopic structure of the tissues and organs, grouping these and adding the functional significance and systemic needs and relations of all body parts.

(2) (A & B) *Microscopic Anatomy.*

This includes normal Histology and Embryology.

Whilst these courses are taught separately, they are so correlated as to show the structural units of the body developmentally, as to their morphology and arrangement and their relations to each other and to other structural units in the construction of the tissues and organs that this study may constitute a proper basis for Gross Anatomy, physiology, pathology, etc. Though mainly laboratory studies, demonstrations and conferences are held frequently.

(3) *Neuro-Anatomy* is taught in the second year and consists

of study, both gross and microscopic of the central nervous system. Abundant material is provided and models, diagrams and lantern projections are freely used.

(4) *Topographical Anatomy* is given by a second year study-room course in drawing and studying prepared specimens, cross-section and other materials.

(5) *Clinical and Applied Anatomy*.

A series of demonstrations with elective study-room facilities, is given in the third year to correlate the general anatomy of selected regions with the needs of the clinician.

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Gross Anatomy	I	480	60
Neuro and Topographical Anatomy	II	132	30
Applied Anatomy	III	30	30
Histology and Embryology	I	256	60
		— 898	— 180

PHYSIOLOGY

RALPH E. MYERS, M. A., M. D. _____ *Professor ad interim*

JOSÉPH D. STOUT, M. A., M. D., Ph. D.

Associate Professor ad interim

The course in Physiology consists of lectures, recitations, demonstrations, laboratory exercises and conferences during the first and second years. It begins in the second-trimester of the first year, so that the student is early in his course in medicine introduced to the functional viewpoint. The functions of the nervous system and special senses, of the blood, of the heart and circulatory system, of glands, of the digestive system, of the respiratory mechanisms, and of reproduction are considered by means of lectures and recitations, and, as far as practicable, experimentally. In the laboratory each student performs the main experiments illustrating the facts regarding bodily function, and demonstration experiments are given to those functions which are too complex for the student to perform himself. In this laboratory work each student is required to keep records of his experiments, and each experiment is supervised and the record criticized and checked before the student leaves the laboratory for the day. The class is divided into sections for oral recitations, which are supplemented by written recitations.

After the completion of the work in normal physiology, in the second year a series of laboratory exercises on the physiological

action of drugs is given (see the announcement under Department of Pharmacology) and in conjunction with that laboratory work lectures are given and recitations are held in which the functional disturbances in disease are considered. In this course special attention is given to the abnormalities of action of the heart and circulatory system, to the mechanical disturbances in respiration, and to the disturbances of the nervous system and the special senses. By this course it is intended to bring the course in normal physiology into closer relations with the succeeding courses in Pathology, Therapeutics and General Medicine.

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Physiology	I	120	63
Physiology	II	185	70
		— 305	— 133

CHEMISTRY

RALPH EMERSON MYERS, M. A., M. D. _____ *Professor*
 JOSEPH HYRAM ROE, M. A. _____ *Associate Professor*

Beginning with the school year 1921-1922 it is planned to concentrate the instruction in chemistry in the first year with the exception of the work given in clinical chemistry. The course is arranged on the assumption that the student is well-grounded in inorganic chemistry and physics. Although not essential, an elementary knowledge of organic chemistry and quantitative methods is also advisable and will make the work of the student much easier. The course is divided as follows:

1. *Organic Chemistry*.—The work in organic chemistry consists of lectures, laboratory work and recitations totaling about 10 hours a week and extending over the major portion of the first trimester. The aim of the course is to give the student a fundamental knowledge of organic chemistry, while at the same time emphasizing those chemical compounds and reactions which he will be especially concerned with in physiological chemistry and pharmacology.

2. *Physical Chemistry*.—After the work in organic chemistry is completed, the remainder of the first trimester will be spent in a study of the more important phases of physical chemistry as viewed from a medical standpoint. Such subjects as radioactivity, properties of colloids, hydrogen ion concentration and the theory of indicators are especially emphasized. At this time the student is also taught how to make up standard solutions and how to standardize his apparatus, because it impresses upon him the

value of accurate technique before he begins his work in physiological chemistry.

3. *Physiological Chemistry*.—The work of this course requires eight hours a week during the second and third trimesters. It includes the study of the different classes of foodstuffs and of their digestion, absorption and assimilation; the nature of the various tissues of the body and of the composition of the different secretions. A large amount of time is devoted to milk and blood, and especially to urine, with the idea of making the student thoroughly acquainted with the normal metabolic processes of the body.

4. *Clinical Chemistry*.—The work of this course is given in the third trimester of the second year and consists of lectures, laboratory work, conferences and demonstrations. Following a review of normal metabolism, the metabolic changes produced by various diseased conditions will be studied. The student performs the various laboratory tests which are used as an aid in the diagnosis of these conditions. As far as possible the laboratory studies in abnormal metabolism are made on patients in the hospital.

5. *Post-Graduate Work*.—A course in clinical chemistry will be opened to a limited number of physicians who wish to become acquainted with recent advances in laboratory methods of diagnosis. Special work will be given to those who are prepared for it.

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Chemistry _____	I	250	90
Physiological _____	II	140	30
		— 390	— 120
*Clinical Chemistry _____	III	40	12

PHARMACOLOGY

RALPH EMERSON MYERS, M. A., M. D. _____ Professor

JAMES HOLMES DEFANDORF, M. A. _____ Associate Professor

Work in this department is offered during the second and third trimesters of the second year.

1. *Elementary Pharmacy and Principles of Prescription Writing*.—The work in this course occupies nine hours a week during the first part of the second trimester. The chemical and physical characteristics of the more important drugs are studied and then pharmacopoeial preparations of the different pharmaceutical classes are prepared. The study of physical and chemical incom-

* See also announcement under Medicine.

patibilities is carried on in close association with the above work.

While the elements of prescription writing are taught at this time, the student is drilled in the writing of simple prescriptions all through his course in pharmacology.

2. *Pharmacology*.—A course comprising lectures, laboratory work, conferences and written reviews, which follows the work in pharmacy and continues through the remainder of the second year. Special effort is made to correlate the work closely and to keep before the minds of the student the close association of pharmacology with physiology and chemistry. In fact these two subjects are the basis upon which the pharmacology is taught. By this method of presentation it is hoped to prepare the future physician against the deluge of non-official and proprietary preparations which are being constantly thrown upon the market. The experiments are selected to illustrate a wide range of pharmacologic actions, the more important drugs being studied in relation to their action on different structures.

THERAPEUTICS

BUCKNER MAGILL RANDOLPH, M. D. _____ *Professor*
ELLIOTT M. CAMPBELL, M. D. _____ *Instructor*

(1) Systematic lectures and recitations on the physiological action of drugs and other remedial agents, their therapeutic use in disease; their modes of administration; and a review of their toxicology. (2) A review of the principles of prescription writing, with practical exercises by students in writing prescriptions in the metric system. (3) Lectures in applied therapeutics, devoted to the study of the application of remedial measures to morbid physiological and pathological states, as they occur clinically.

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Pharmacology _____	II	187	60
Materia Medica and Toxicology _____	II	36	12
Therapeutics _____	III	64	64
		— 223	— 72

DIETETICS

FRANK ADELBERT HORNADAY, M. S., M. D. _____ *Professor*

A course of lectures and conferences on the physiology of nutrition and principles of feeding in health and disease.

Each student is required to make a thorough dietetic study of one or more cases, and to plan proper dietaries in such cases. Visits are made to Government food exhibits.

BACTERIOLOGY AND PATHOLOGY

OSCAR BENWOOD HUNTER, A. B., A. M., M. D. _____ *Professor*

NOLAN VON CHARPENTIER LEWIS, M. D.

*Professor of Experimental Pathology*EUGENE R. WHITMORE, M. D. _____ *Professor of Bacteriology*TOMAS CAJIGAS, M. S., M. D. _____ *Professor of Pathology*

BACTERIOLOGY

The didactic portion of the course in Bacteriology consists of a series of about thirty formal lectures in which the entire field of bacteriology including immunology in its application to human medicine and welfare is considered. The first few lectures are necessarily limited to the consideration of the general principles of the science after which the pathogenic microorganisms are discussed in a systematic sequence, with the theories of immunity treated of in appropriate places.

In the laboratory portion of the course which occupies about three-quarters of the total time devoted to the subject the students first prepare all the standard culture media and learn the general principles of bacteriologic technic from the study of about a dozen typical, widely different non-pathogenic organisms. Subsequently twenty-five to thirty pathogenic bacteria are carefully examined by microscopic, cultural and serologic methods. The students prepare as far as practicable such special media as are needed for this latter work. In addition to this systematic examination of characteristic organisms the students test the efficiency of the commonly employed germicides, prepare a vaccine, and in groups prepare agglutinating, hemolytic and other immune serums and use these as commonly employed in diagnosis. In connection with the preparation of culture media the principles of sterilization are covered. In the microscopic examination of bacteria the students are trained in the use of the high powers of the microscope, in the use of dark ground illumination, and are taught to make microscopic measurements.

During the course where occasion arises in connection with special cases of interest in the University Hospital or elsewhere unusual infections or rarely occurring processes of diagnosis, etc., are demonstrated. The routine bacteriologic and serologic work of the Hospital is done in the same laboratory where the students are working so that they have ample opportunity to observe the practical application of bacteriology.

PATHOLOGY

In Pathology, the division of the course into laboratory and lecture teaching is followed, the amount of time devoted to each being about twice the corresponding time in Bacteriology. General pathology, covering inflammation, repair, degenerations, the effects of plant (including bacteria) and animal parasites on the body, the effects of chemical and physical agents, the formation of new growths, etc., is first considered. This is followed by the special pathology of the organs and of the specific diseases.

The laboratory work consists primarily in the histologic study of diseased tissues and neoplasms. About two hundred sections are stained and mounted and loaned to each student. These sections are carefully examined and studied by the student who makes colored pencil drawings of the characteristic lesions shown by them.

The microscopic study is supplemented by that of post-mortem material and that from the operating room and by specimens in the museum thus affording a knowledge of gross morbid anatomy.

At St. Elizabeth's Hospital, under Dr. Lewis, students have an excellent opportunity for training in gross pathology and in the details of post-mortem technic from the autopsy through the preparation, sectioning, and staining of the tissues to be studied, to their final diagnosis and report.

CLINICAL MICROSCOPY

In the course in Clinical Microscopy the student is trained in the counting of the red and the white blood cells, in the various methods of hemoglobin estimation, in differential leucocyte counting, in the study of malarial parasites, and such other parasites of the blood as opportunity affords, in the estimation of the coagulation time of the blood, etc., in the microscopic study of the sediments in normal and pathologic urines, in the microscopic examination of stomach contents, of the feces, including a detailed study of animal parasites and their eggs, in the microscopic examination of sputum, of spinal fluids, pleural exudates, etc., as material and opportunities afford. The significance and value of these findings as applied to pathology and diagnosis are considered.

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Bacteriology	II	144	30
Pathology	II	292	60
Preventive Medicine and Hygiene		32	32
		468	122
Clinical Microscopy		48	16

MEDICINE

STELLING RUFFIN, M. D. _____ *Professor*
 GEORGE NICHOLAS ACKER, A. M., M. D. _____ *Professor of Pediatrics*
 THOMAS ASH CLAYTOR, M. D. _____ *Clinical Professor of Medicine*
 RANDOLPH BRYAN CARMICHAEL, M. D. _____ *Professor of Dermatology*
 WILLIAM ALANSON WHITE, M. D.

Professor of Psychiatry and Clinical Professor of Neurology
 EDWARD URBANE REED, M. D. _____ *Professor of Tropical Medicine*
 T. LAWN THOMPSON, M. D. _____ *Clinical Professor of Medicine*
 EDGAR SNOWDEN, M. D. _____ *Professor of Hygiene*
 HARRY S. BERNTON, M. D. _____ *Professor of Medical Jurisprudence*
 FRANK LEECH, M. D. _____ *Clinical Professor of Medicine*
 FRANK ADELBERT HORNADAY, S. B., M. D.

Professor of Dietetics and Associate in Medicine
 HARRY HAMPTON DONNALLY, A. M., M. D.,

Clinical Professor of Pediatrics
 EDGAR PASQUEL COPELAND, M. D. _____ *Associate in Pediatrics*
 WILLIAM CABELL MOORE, M. D. _____ *Associate in Medicine*
 COURSEN BAXTER CONKLIN, S. B., M. D. _____ *Associate in Medicine*
 WILLIAM JOHNSTON MALLORY, M. D. _____ *Associate in Medicine*
 THOMAS LINVILLE, M. D. _____ *Clinical Associate in Medicine*
 EVERETT MUNROE ELLISON, A. M., M. D. _____ *Clinical Associate*
 ROBERT SAMUEL TRIMBLE, M. D. _____ *Clinical Instructor in Medicine*
 WILLIAM HOUSTON LITTLEPAGE, M. D.,

Clinical Instructor in Medicine
 JAMES CHARLES HASSALL, M. D.,

Clinical Associate in Psychiatry and Clinical Neurology
 MARY O'MALLEY, M. D.,

Clinical Instructor in Psychiatry and Neurology
 WILLIAM DAVID TEWKSBURY, M. D.,

Clinical Instructor in Medicine
 CARROL E. BINGMAN, M. D. _____ *Clinical Instructor in Medicine*
 ROBERT S. BEALE, M. D. _____ *Clinical Instructor in Medicine*
 LYLE M. MASON, M. D. _____ *Clinical Instructor in Medicine*
 GEORGE N. ACKER, 2nd, M. D. _____ *Instructor in Medicine*
 WATSON W. ELDRIDGE, M. D. _____ *Clinical Instructor in Medicine*
 RUSSELL K. HOLLINGS, M. D. _____ *Clinical Instructor in Medicine*
 F. AUGUSTUS REUTER, M. D. _____ *Clinical Instructor in Medicine*
 LLOYD H. ZIEGLER, A. M., M. D. _____ *Clinical Instructor in Psychiatry*
 MAURICE A. SELINGER, M. D. _____ *Clinical Instructor in Medicine*

Instruction in Medicine is so given as to conform to the most modern requirements. The work begins in the second year with a complete course in history-taking and normal physical diagnosis,

and is continued through the third and fourth years. During the later two years the course consists of lectures, recitations, a study of case histories, clinical conferences, and practical work in the clinical laboratory and at the bedside. The work is made as practical as possible.

The third-year class is divided into small sections, which are required to attend the daily dispensary service in the University Hospital, where they are drilled especially in history-taking and in the technique of practical physical diagnosis.

The fourth-year class is similarly divided into small sections, and these are required to attend ward clinics in the University Hospital, the Garfield Memorial Hospital, Children's Hospital, St. Elizabeth's Hospital, and the Tuberculosis Hospital of the District of Columbia.

The system of ward clinics to small groups of students affords a most effective method of studying disease and gives to every student an opportunity of following a large assortment of diseases from their commencement to the termination of their illness; in no other way is it possible to get a more practical knowledge of the methods of studying disease or a more intimate knowledge of disease itself.

Every patient in the medical wards of the University Hospital is assigned to one, or at most two, senior students, who are required (under proper supervision) to take the history, to make and record a complete physical examination, to determine after due study the nature of the illness (diagnosis), to outline a plan of treatment, and to make daily notes of the progress of the case.

A weekly amphitheatre clinic is given to third-year students in a body and a similar clinic to the fourth-year class. A series of clinics in neurology and psychiatry is provided for the senior class at the Saint Elizabeth's Hospital, where there is a great wealth of material (see announcement of Psychiatry and Clinical Neurology.)

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Medicine	II, III, IV		
General Medicine		510	152
*Clinical Microscopy		48	12
†Clinical Chemistry		48	12
Physical Diagnosis		80	40
Tropical Diseases		12	12

* See also announcement under Bacteriology and Petrology.

† See also announcement under Chemistry.

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Medicine—continued	II, III, IV		
Dermatology and syphilis		93	30
Nervous and Mental Diseases		186	62
Psychiatry		163	54
Medical Jurisprudence		23	23
		—1163	— 401

TROPICAL MEDICINE

EDWARD URBANE REED, M. D.,

Commander, Medical Corps, U. S. N., Professor

The course in tropical diseases is similar to that given in the Army and Navy Medical Schools, and consists of didactic lectures, quizzes, and laboratory instruction, with particular reference to the parasitic, protozoal diseases common in the tropics and in the southern part of the United States.

PSYCHIATRY AND CLINICAL NEUROLOGY

WILLIAM ALANSON WHITE, M. D., Superintendent of

Saint Elizabeth's Hospital *Professor*JOSEPH D. STOUT, Ph. D. *Associate Professor*ROSCOE W. HULL, Ph. B., M. D. *Clinical Associate*DANIEL C. MAIN, M. D. *Clinical Associate*LOYD H. ZIEGLER, A. B., A. M., M. D. *Clinical Instructor*MARY O'MALLEY, M. D. *Instructor*

A series of lectures and clinics upon psychosis and neurology in various forms are given at Saint Elizabeth's Hospital which, with its more than three thousand beds, affords one of the largest clinics in this country.

PEDIATRICS

GEORGE NICHOLAS ACKER, A. M., M. D. *Professor*HARRY HAMPTON DONNALLY, M. D. *Clinical Professor*EDGAR PASQUAL COPELAND, M. D. *Clinical Professor*CHARLES WHEATLEY, M. D. *Clinical Associate*

Didactic and clinical lectures, bedside and dispensary clinics are given upon diseases of infants and children and the importance of the proper management of these diseases by diet and hygiene.

The children's clinic, at the Children's Hospital, affords ample material for practical teaching in this branch.

PHYSICAL DIAGNOSIS

WILLIAM CABELL MOORE, M. D.	<i>Associate</i>
GEORGE N. ACKER, 2nd, M. D.	<i>Instructor</i>
FRANK ADELBERT HORNADAY, S. B., M. D.	<i>Instructor</i>

Instruction is given in the principles and methods of physical examination by means of recitations, section work or normal subjects, and with clinical cases which typically represent diseased conditions.

DERMATOLOGY

RANDOLPH BRYAN CARMICHAEL, M. D.	<i>Professor</i>
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The lectures in this course will be principally clinical, supplemented by didactic lectures, illustrated by diagrams, models, and photographic illustrations of disease from life.

MEDICAL JURISPRUDENCE

HARRY S. BERNTON, M. D.	<i>Professor</i>
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This course is designed to familiarize students with the rights and obligations of physicians, both legal and ethical, and to qualify them to apply the facts of medical science to the solution of problems in law.

SURGERY

WILLIAM CLINE BORDEN, M. D.	<i>Professor</i>
CHARLES WILLIAMSON RICHARDSON, M. D.,	
	<i>Professor of Laryngology and Otology</i>
AURELIUS RIVES SHANDS, M. D.	
	<i>Clinical Professor of Orthopedic Surgery</i>
FRANCIS RANDALL HAGNER, M. D.,	
	<i>Professor of Genito-Urinary Diseases and Venereal Diseases</i>
LUTHER HALSEY REICHELDERFER, M. D.	<i>Clinical Professor</i>
THOMAS CHARLES MARTIN, M. D.	<i>Professor of Proctology</i>
CUSTIS LEE HALL, M. D.	<i>Professor of Orthopedic Surgery</i>
HARRY HYLAND KERR, M. D.	<i>Clinical Professor</i>
JAMES F. MITCHELL, A. B., M. D.	<i>Clinical Professor</i>
OSCAR ADDISON MACK MCKIMMIE, M. D.,	
	<i>Clinical Professor of Laryngology and Otology</i>
WILLIAM THORNWALL DAVIS, M. D.	<i>Professor of Ophthalmology</i>
CHARLES STANLEY WHITE, M. D.	<i>Associate Professor</i>
DANIEL LERAY BORDEN, A. M., M. D.	<i>Associate Professor</i>
ARTHUR C. CRISTIE	<i>Professor of Roentgenology</i>
THOMAS A. GROOVER, M. D.	<i>Associate Professor of Roentgenology</i>
HENRY W. KEARNEY, M. D.	<i>Professor of Anaesthesia</i>

EDWARD GRANT SEIBERT, M. D.,	
	<i>Associate in Ophthalmology and Laryngology</i>
EDWIN C. MERRITT, M. D.	<i>Associate in Roentgenology</i>
ADAM KEMELE, M. D.	<i>Associate in Genito-Urinary Surgery</i>
CHARLES W. HYDE	<i>Associate in Anaesthesia</i>
CLINE N. CHIPMAN, M. D.	<i>Associate in Anaesthesia</i>
EDWARD M. PARKER, M. D.	<i>Clinical Associate</i>
ALBERT PERKINS TIBBETS, M. D.,	
	<i>Clinical Instructor in Laryngology and Otology</i>
JOHN POTTS FILLEBROWN, M. D.	<i>Clinical Instructor</i>
HOMER GIFFORD FULLER, M. D.,	
	<i>Clinical Instructor in Genito-Urinary Surgery</i>
HARRY SAMUEL LEWIS, M. D.	<i>Clinical Instructor</i>
WILLIAM BERRY MARBURY, M. D.	<i>Instructor</i>
SAMUEL BOYCE POLE, M. D.,	
	<i>Clinical Instructor in Laryngology and Otology</i>
SAMUEL H. GREENE, M. D.	<i>Instructor in Laryngology and Otology</i>
THOMAS M. FOLEY, M. D.	<i>Instructor in Orthopedic Surgery</i>
GEORGE H. MORRIS, M. D.	<i>Clinical Instructor</i>
WILLIAM G. YOUNG, M. D.,	
	<i>Clinical Instructor in Genito-Urinary Surgery</i>
EARL GRIFFITH BREEDING, A. B., M. S., M. D.,	
	<i>Clinical Instructor in Laryngology and Otology</i>
CHARLES O. KNOTT, M. D.	<i>Instructor in Genito-Urinary Surgery</i>
HERBERT H. SCHOENFELD, M. D.	<i>Clinical Instructor</i>
AUGUSTUS C. GRAY, M. D.	<i>Instructor</i>
FREDERICK C. SCHREIBER, M. D.,	
	<i>Instructor in Laryngology and Otology</i>
PAUL S. PUTZKI	<i>Instructor</i>
JAMES A. CAHILL	<i>Instructor</i>

The principles of surgery are presented in a systematic course of lectures, so that the student may obtain a comprehensive and adequate concept of the science and art of surgery. The special divisions of surgery are taught by associates and instructors who have made specialties of these branches. The clinical material in the University Hospital and Dispensary, being under the control of the Faculty, is directly used throughout the course to illustrate the subjects taught and to familiarize the students with actual clinical conditions.

Surgical technique is taught by instruction in the preparation of materials used in antiseptic and aseptic surgery, the preparation of the patient, and the sterilization of instruments. Practical instruction is given in the Hospital and Dispensary in the application of splints, bandages, and dressings used in the various surgical

diseases and injuries. Thorough instruction and practical demonstrations are given in the administration of anaesthetics.

Clinical teaching is carried on in the University Hospital and Dispensary, and in other hospitals of the city to which members of the Faculty are attached.

Ward clinics and bedside instruction are made a prominent part of the course. The classes are divided into sections, which are regularly assigned to clinical work in the University Hospital and Dispensary, and in other hospitals and dispensaries. Senior students are assigned in rotation to individual cases in the wards of the University Hospital.

Amphitheatre clinics are given, in which the general practice of surgical diagnosis and operative technique and therapeutic procedure are shown.

Practical work is required of each student in the preparation of dressings and sterilization of instruments. Each student is required to give, under instruction, at least six anaesthesias and to assist in at least six operations.

Thorough courses are given in operative surgery and proctology.

SUBJECT	YEARS	HOURS	
		Totals Didactic and Lab.	Didactic not to exceed
Surgery	II, III, IV		
General Surgery, including Minor Surgery, Military Sur- gery, Fractures and Anaes- thesia		484	148
Röntgenology		36	14
Ophthalmology		60	18
Laryngology and Otology		56	28
Genito-Urinary Surgery		60	28
Orthopedics		73	24
		769	260
ORTHOPEDICS			

CUSTIS LEE HALL, M. D.	Professor
ATRELIUS RIVES SHANDS, M. D.	Clinical Professor
THOMAS MADDEN FOLEY, M. D.	Clinical Professor

A course of lectures and recitations on the etiology, pathology, course, termination and treatment of congenital and acquired diseases of the bones and joints, with clinical instruction in the operations for the relief and correction of deformities, and the use of special apparatus and plaster of Paris.

RADIOGRAPHY

ARTHUR C. CHRISTIE, M. D.	Professor
THOMAS A. GROOVER, M. D.	Associate Professor
EDWIN A. MERRITT, M. D.	Associate

A fully equipped X-ray laboratory is maintained in the University Hospital and Dispensary. Students of the third and fourth year classes are assigned in sections for instructions in the use of apparatus and the application of radiographs and fluoroscopic examinations to diagnosis.

GENITO-URINARY DISEASES

FRANCIS RANDALL HAGNER, M. D.	Professor
ADAM KEMBLE, M. D.	Associate
HOMER GIFFORD FULLER, M. D.	Clinical Instructor
WILLIAM G. YOUNG, M. D.	Clinical Instructor
CHARLES O. KNOTT, M. D.	Clinical Instructor

A thorough course of instruction in genito-urinary diseases is given by lectures, recitations, section clinics, and bedside teaching.

MILITARY SURGERY AND SANITATION

—, M. D., Colonel, Med. Corps, U. S. A.	Professor
— The treatment of gunshot wounds with special reference to civil and military practice is given in a course of lectures and demonstrations, fully illustrated by lantern slides, X-ray photographs, and actual specimens.	

The use of the new armaments in recent wars and the characteristic features of the wounds caused by them, as well as the treatment of gunshot wounds in peace and war are dealt with.

OPHTHALMOLOGY

WILLIAM THORNWALL DAVIS, M. D.	Professor
DANIEL KERFOOT SHUTE, A. B., M. D.	Clinical Professor
EDWARD GRANT SEIBERT, M. D.	Clinical Instructor
EARL GRIFFITH BREEDING, A. B., M. S., M. D.	Clinical Instructor

A course of lectures is given on the elementary principles of this subject, together with special instruction in the anatomy and physiological action of the more intricate parts of the eye. It is not intended to qualify the student as a specialist, but to give him a knowledge of what every general practitioner ought to know. The course is supplemented by clinical instruction in the University Dispensary and in the Episcopal Eye, Ear and Throat Hospital.

LARYNGOLOGY AND OTOTOLOGY

CHARLES WILLIAMSON RICHARDSON, M. D., Sc. D.	Professor
OSCAR ADDISON MACK McKIMMIE, M. D.	Clinical Professor
EDWARD GRANT SEIBERT, M. D.	Instructor
ALBERT PERKINS TIBBETS, A. B., M. D.	Clinical Instructor
SAMUEL HARRISON GREENE, M. D.	Clinical Instructor
SAMUEL BOYCE POLE, M. D.	Clinical Instructor
EARL G. BREEDING, M. D.	Clinical Instructor
FREDERICK C. SCHREIBER, M. D.	Clinical Instructor
BOYCE R. BOLTON, M. D.	Clinical Instructor

The course comprises lectures and clinical instruction on diseases of the nasal passages, pharynx, larynx, and the ear. Practical demonstrations are given in the use of the laryngoscope and other instruments required in these special branches.

OBSTETRICS

HURON WILLIS LAWSON, S. M., M. D.	Professor
WILLIAM SINCLAIR BOWEN, M. D.	Clinical Professor
EDGAR SNOWDEN, M. D.	Clinical Associate
ALBERT E. PAGAN, M. D.	Associate
HOWARD FRANCIS KANE, A. B., M. D.	Associate
CYRUS W. CULVER, M. D.	Clinical Instructor

The course in obstetrics comprises lectures, recitations, laboratory demonstrations and clinical instruction and extends over the third and fourth years. The lectures serve to outline the subject-matter and the recitations insure careful preparation on the part of the student. Special laboratory studies dealing with anatomy, embryology and pathology in relation to obstetrics are conducted in the different laboratories concerned. Models, manikins and cadavers are utilized in teaching the mechanism of labor and obstetrical operations. Clinical instruction is given to the classes in small sections at different hospitals and in the out-patient obstetrical service. Beginning about the middle of the third year each student is given practical instruction in making antepartum examinations and observes the management of labor cases. During the fourth year he conducts, under the supervision of a paid instructor, twelve labor cases in the large and well-organized out-patient maternity service and submits written reports upon the cases attended.

SUBJECT	HOURS	
	Total Didactic and Clinical	Didactic not to exceed
Obstetrics	III and IV 192†	64

† The total number of clinic hours cannot be given, as each student is required to attend twelve cases, exclusive of the demonstration work and Ward and Dispensary Clinics above enumerated.

GYNECOLOGY

JOHN WESLEY BOVEE, M. D.	Professor
ALBERT LIVINGSTON STAVELY, M. D.	Clinical Professor
GIDEON BROWN MILLER, M. D.	Clinical Professor
ALBERT E. PAGAN, M. D.	Associate
ELIJAH WHITE TITUS, M. D.	Associate
NELSON DUVAL BRECHT, M. D.	Instructor
VIRGIL B. JACKSON, M. D.	Clinical Instructor

Gynecology as taught in the third year comprises a course of lectures, text-book recitations and clinical instruction. In the fourth year individual students are assigned to cases in the wards of the University Hospital, and the class is taken in sections of one or two students each into the Gynecological Dispensaries for clinical instruction in examinations, diagnosis, and treatment. In larger sections the class attends amphitheater and ward clinics given by the Professor of Gynecology and his assistants.

SUBJECT	YEARS	HOURS	
		Total Didactic and Clinical	Didactic not to exceed
Gynecology	III and IV	169	58

HYGIENE

EUGENE G. NORTINGTON, M. D.	Professor
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The course in Hygiene covers the basic principles and their practical application. Consideration is given also to domestic and municipal sanitation and to the principles underlying legislative control of public health.

SUBJECT	YEARS	HOURS	
		Total Didactic and Clinical	Didactic not to exceed
Hygiene	II	32	32

ETHICS

The subject of ethics as given in the order of instruction will comprise didactic lectures on personal ethics in the first year and on medical ethics in the fourth year. Instruction will be given concerning personal hygiene, care of laboratory equipment, general conduct and adaptability for the profession.

CLINICAL FACILITIES

The following hospitals are open to the students of this school for clinical study, and are extensively used for that purpose:

UNIVERSITY HOSPITAL AND THE UNIVERSITY DISPENSARY

H Street, between Thirteenth and Fourteenth Streets N. W. and adjacent to the Medical Building.—The Hospital and Dispensary are part of the educational equipment of the University. They are integral parts of the Medical School, are entirely controlled by the Faculty of Medicine, and are used primarily in instructing the students in clinical work. The Dispensary has a large out-patient service in all departments, to which several thousand visits are made annully.

The staff is composed of members of the Faculty of Medicine.

GARFIELD MEMORIAL HOSPITAL

Florida Avenue and Tenth Street N. W.—This institution has 118 charity beds. Clinics are given regularly throughout the session by members of the Faculty connected with the visiting staff of the hospital.

Members of the Faculty on the visiting staff: Professors CLAYTOR and LEECH, Clinical Medicine; Professors REICHELDERFER and KERR, Clinical Surgery; Professors STAVELY and MILLER, Clinical Gynecology; Professor CARMICHAEL, Clinical Dermatology; Professor DAVIS, Ophthalmology; Professor HAGNER, Clinical Genito-Urinary Surgery; Professor BOWEN, Clinical Obstetrics; Dr. MERRITT, Radiography.

CHILDREN'S HOSPITAL

W Street, between Twelfth and Thirteenth Streets N. W.—Regular instruction is given in the medical and surgical wards by members of the Faculty on the visiting staff of the hospital. This institution has 100 charity beds. There is also a large out-patient department, to which students are regularly assigned for clinical instruction.

Members of the Faculty on the visiting staff: Professor YARROW, Consulting Physician; Professors REICHELDERFER and KERR, Clinical Surgery; Professors ACKER, LEECH, DONNALLY and COPELAND, Clinical Medicine; Professor HALL, Orthopedic Surgery.

PROVIDENCE HOSPITAL

Second and D Streets S. E.—Four hundred and ten beds and a large dispensary service is open for clinical instruction by members of the visiting staff.

Members of the Faculty on the visiting staff: Professor WHITE and Drs. PARKER, SULLIVAN and CAHILL, Clinical Surgery; Professor THOMPSON, Clinical Medicine.

EMERGENCY HOSPITAL AND CENTRAL DISPENSARY

1711 New York Avenue.—The hospital has 100 charity beds, and has a very large out-patient service. The large emergency service gives exceptional facilities in clinical surgery, particularly in fractures and dislocations which are taught in regular clinics by the instructor in this subject.

Members of the faculty on the visiting staff: Professor HAGNER, Clinical Genito-Urinary Diseases; Professors MITCHELL and WHITE and Drs. JACKSON and LEWIS, Surgery; Drs. ELLISON, STOUT and CAMPBELL, Clinical Medicine; Professor CARMICHAEL, Clinical Dermatology; Dr. MILLER, Clinical Gynecology; Professors SHANDS and FOLEY, Orthopedies; Professor SHUTE, Ophthalmology; Dr. ELLISON, Director of Clinics.

COLUMBIAN HOSPITAL FOR WOMEN

Twenty-fifth Street and Pennsylvania Avenue N. W.—This hospital has 40 charity beds for diseases peculiar to women, and 40 charity maternity beds. Both the obstetrical and the gynecological services are particularly good and are fully utilized for students.

Members of the Faculty on the visiting staff: Professors BOVEE and MILLER, and Drs. D. L. BORDEN and SULLIVAN, Clinical Gynecology; Professors LAWSON and BOWEN and Dr. SNOWDEN, Clinical Obstetrics; Professor SHUTE, Ophthalmology; Professors RUFFIN and RANDOLPH, Visiting Physicians; Dr. ABBE, Surgery; Dr. COPELAND, Pediatrics.

ST. ELIABETH'S HOSPITAL

This hospital is maintained by the United States Government. It has 4,000 beds. Clinical instruction in mental diseases is given by the superintendent of the hospital, Professor W. A. WHITE, and Drs. O'MALLEY, LIND, MAIN and HALL, Neurology and Clinical Psychiatry; Drs. ELDRIDGE and REUTER, Clinical Medicine. Professor LEWIS; Professor SHUTE, Consulting Ophthalmologist; Professor RUFFIN, Consulting Physician; Professor BOVEE, Consulting Gynecologist.

THE EPISCOPAL EYE, EAR, NOSE, AND THROAT HOSPITAL

Fifteenth Street, between L and M Streets N. W.—Excellent opportunities for clinical instruction in ophthalmology, otology, laryngology, and rhinology are offered by this hospital.

Members of the Faculty on its staff: Professors RICHARDSON and MCKIMMIE and Drs. GREENE, BREEDING, SCHRIEBER and BOLTON, Clinical Otology and Laryngology; Professor DAVIS, Ophthalmology; Professor ACKER, Consulting Physician; Dr. WHITE, Consulting Surgeon.

CASUALTY HOSPITAL

Massachusetts Avenue N. E.—Opportunities in emergency and dispensary work are offered by this institution.

Members of the Faculty on its staff: Professor ACKER, Consulting Physician; Dr. HALL, Orthopedic Surgery; Dr. KANE, Obstetrics.

TUBERCULOSIS HOSPITAL

Fourteenth and Upshur Streets N. W.—Members of the Faculty on its staff: Professor CLAYTOR, and Dr. TEWKSBURY, Clinical Medicine; Professor REICHELDERFER, Clinical Surgery; Professor RICHARDSON, Ophthalmology.

WASHINGTON ASYLUM HOSPITAL

Members of the Faculty on the staff: Professor LEE and Dr. LADD, Clinical Medicine.

CLASSIFICATION AND ADVANCEMENT OF STUDENTS

Students are divided into four classes, according to their proficiency and the time spent, viz: first year, second year, third year and fourth year.

Proficiency in all subjects is marked on a scale of 100. The passing grade in each subject is 75.

Examinations are held at the end of the course in each subject. Students who fail to appear at a regular examination will not be examined until the next regular examination except by special permission of the Advisory Committee of the Faculty. For special examinations, a fee of ten dollars will be charged for each subject.

A student who has failed in any subject shall not be advanced unless his case is especially meritorious and then only by authority of the Advisory Committee of the Faculty. A student who has failed in a subject may, in the discretion of the Advisory Committee, be required to make it up in the September examinations.

A student who fails of graduation, may if approved by the Advisory Committee, be reexamined for graduation in the September examinations.

A student allowed to take the September examinations either for graduation or advancement, will be required to take examinations in such subjects as the Advisory Committee may direct.

A student allowed to repeat a year will be required to take such subjects and such examinations as may be directed by the Advisory Committee.

A student who fails of advancement after repeating any one of the first three years or fails of graduation after repeating the final year will not be permitted to maintain his connection with the school.

REQUIREMENTS FOR GRADUATION

Every candidate for the degree of Doctor of Medicine must be at least twenty-one years of age and of reputable character. He must have complied with the admission and other requirements herein set forth. He must have attended at least 80 per cent of all required instruction during four sessions of 32 weeks each in four separate years; must have satisfactorily completed all his courses and passed all his examinations. He must be present at the time specified for the final examinations, and also at Commencement. The degree is not conferred in the absence of a candidate except by special consent of the President's Council. Graduates of other accredited colleges who desire degrees must spend one year in residence at this school.

Candidates who in their work and examinations attain general averages of 90 or more will be presented to the Faculty for consideration with reference to being designated as having graduated with distinction. If in the opinion of the Faculty such candidates have shown themselves to be possessed of more than ordinary merit, they will have inscribed upon their diplomas beneath their degree the words "with distinction."

PRIZES

A prize from the Ordonaux Prize Endowment will be awarded to the student of the third, and the student of the fourth year class who has the highest scholastic standing.

HOSPITAL APPOINTMENTS

Interns are annually appointed in the University Hospital. Appointments to similar positions are open to graduates and undergraduates of this school in the following other hospitals of the city: Garfield Memorial Hospital; Emergency Hospital; Columbian Hospital for Women; Casualty Hospital; Providence Hospital; Washington Asylum Hospital; Children's Hospital; Episcopal Eye, Ear and Throat Hospital; Sibley Hospital, and Walter Reed, U. S. Army General Hospital.

UNIVERSITY MEDICAL SOCIETY

The George Washington University Medical Society was established in 1905 by a group of alumni. Its purpose is to cultivate closer friendly relations between the alumni and members of the faculty by means of social gatherings, to advance medical science by the presentation of essays, case reports and specimens for instruction and discussion, at its meetings, and to further the inter-

est of the university in general. All alumni and members of the faculty are eligible for membership on election.

Officers: Dr. F. A. HORNADAY, *President*; Dr. H. W. KEARNEY, *Vice-President*; Dr. C. B. CONKLIN, *Secretary-Treasurer*.

Meets at the Medical School building on the third Saturday of each month from October to May.

Senior students are invited to attend the meetings of this society so allowing them the valuable opportunity of hearing the papers presented on medical subjects and becoming familiar with the conduct of medical societies.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION

The central building of this Association is situated within a short distance of the Medical School.

On application through the Dean, students non-resident of the District may become members, with full privileges, including gymnasium, shower baths, swimming pools, lockers, etc., at a special rate of ten dollars for the period of the school session.

Further information regarding the Association may be obtained by application to the Secretary, 1736 G St., N. W.

MEDICAL CORPS UNIT—RESERVE OFFICERS' TRAINING CORPS. U. S. ARMY

A Medical Corps Unit (R. O. T. C.) is established in this school by authority of the Secretary of War and an Officer of the Medical Corps of the Army is detailed to the University for supervision and instruction of the students in the Unit.

Membership in the unit is voluntary, is open to any physically fit, male student and such membership offers material advantages.

Any student who remains in the unit for the four years of his medical course receives in the last two years pay to the amount of \$409 or an average of \$17 per month. There are no military drills, the members of the unit are not under military restraint, no uniform is worn in the school and there is no obligation as to military service after graduation.

The instruction in the unit is divided into two courses of two years each, and consists of one hour per week of instruction in medico-military matters, additional to the regular hours of medical teaching.

Students who satisfactorily complete the first two years may, if they elect, enter the advanced course of two years during which they receive pay, are obligated to complete the course and to attend one summer camp of instruction for six weeks to which the student will receive travel pay of five cents per mile and return to his home and during which he will have all camp requirements

provided, including uniform only worn in camp, other necessary articles, medical attention if necessary, and pay at the rate of \$30 per month—really giving a most enjoyable outing with pay.

While students are not in any way obligated to enter the unit, it is suggested that for the small obligation and time given, the instruction and pay received is well worthy of consideration.

Students of the freshman class (1921-22) may be admitted to the second year (1922-23) of the unit without examination and without being required to make up any work of the first year.

MEDICAL SCHOOL FEES

Registration, payable on entrance.....	\$ 5.00
Registration, each subsequent year.....	2.00
Tuition each year.....	200.00
Laboratory material, first and second year, each.....	10.00
Operative surgery material, third year.....	10.00
Breakage deposit, unused part returnable.....	10.00
Graduation fee.....	10.00

There is no charge for use of microscopes but students will be required to pay for injury to microscopes, apparatus and other college property. All breakage and loss not directly traceable to an individual student is assessed pro rata, and any unforfeited balance of the breakage deposit will be returned at the expiration of the course.

Persons not candidates for the degree of Doctor of Medicine who take courses in Histology, Embryology, Bacteriology, Pathology or Clinical Microscopy will be charged a fee of \$6.00 for the use of the microscope in each of these courses. Should such a student take more than one of the courses mentioned, in any one school year, he will be charged a single fee of \$6.00 for microscope rental.

Students who elect to take the regular four-year course in five years will be required to pay the full tuition for the first four years and will receive the fifth year without additional charge.

Persons are allowed to register as auditors for the tuition fees without being required to take active part in the exercises or to pass examinations but no credit will be allowed for such attendance.

No registration will be accepted for less than a full year, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. Registration in the Medical School is for a period not to exceed one year at a time and acceptance by the School of a student's registration fee does not in any way obligate the School to accept that student for any subsequent year.

Registration, other fees and deposits are due in full in advance. Tuition may be paid in eight monthly instalments in advance. Students who are unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond of \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current school year. All fees are payable at the office of the Dean.

PREMEDICAL YEARS FEES

SPECIAL COURSE ADMITTING TO THE MEDICAL SCHOOL,
BUT NOT LEADING TO A DEGREE IN THE
ARTS DEPARTMENT

Annual registration fee	\$2
Tuition, per annum	180
First Year—	
Chemistry laboratory:	
Materials	10
Breakage	10
Zoology:	
Materials	5
Microscope	5
Second Year—	
Zoology:	
Materials	5
Physics Laboratory:	
Materials	10

If Chemistry 7 is elected, a \$10.00 fee for materials and a \$10.00 deposit fee will be required.

COURSES LEADING TO THE DEGREE OF BACHELOR OF
SCIENCE IN MEDICINE

Annual registration fee	\$2
Tuition, per annum	180
First Year—	
Chemistry Laboratory:	
Materials	10
Breakage	10
Zoology:	
Materials	5
Microscope	5
Second Year—	
Chemistry Laboratory:	
Materials	10
Breakage	10

Second Year—*continued*

Zoology:	
Materials	\$ 5
Physics:	
Material fee	10

WITHDRAWALS

Withdrawals will be granted only on recommendation of the Dean and the approval of the President.

A certificate of work actually done will be given to any student granted a withdrawal or a transfer to another school during the session. A written request for withdrawal or transfer must be filed with the Dean and no permission to withdraw or transfer, and no certificate of work done will be given a student unless all fees and dues chargeable against him up to the end of the month in which he withdraws have been paid.

BOARD AND ROOMS

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$30 to \$50 a month.

Applicants are urged to secure from the schools and colleges attended, completely compiled, premedical credentials and forward them for evaluation as long a time as possible before the opening of the Medical School in September.

While no standard form of statement is required, blank forms for enumerating credentials will be supplied if requested.

For catalogues, application blanks, and further information, address.

THE DEAN,

Medical School,

The George Washington University,

1335 H Street N. W., Washington, D. C.

THE GEORGE WASHINGTON UNIVERSITY SCHOOL FOR NURSES

ADMINISTRATIVE AND TEACHING PERSONNEL

WILLIAM MILLER COLLIER, L. H. D., D. C. L., LL. D.,	<i>President of the University</i>
WILLIAM CLINE BORDEN, M. D.,	<i>Dean, Department of Medicine of the University and Chairman of the Executive Committee of the Hospital</i>
JOHN WESLEY BOVEE, M. D.	<i>Gynaecology</i>
CHARLES WILLIAMSON RICHARDSON, M. D.	} <i>Ear, Nose and Throat</i>
OSCAR ADDISON MACK McKIMMIE, M. D.	
HENRY KNOX CRAIG, M. D.	<i>Materia Medica</i>
RANDOLPH BRYAN CARMICHAEL, M. D.	<i>Dermatology</i>
CYRUS W. CULVER, M. D.	<i>Anatomy</i>
OSCAR BENWOOD HUNTER, S. M., M. D.	<i>Bacteriology</i>
HARRY KNOX CRAIG, M. D.	<i>Physiology</i>
EDGAR PASQUAL COPELAND, M. D.	<i>Pediatrics</i>
DANIEL LERAY BORDEN, A. M., M. D.	<i>Surgery</i>
HURON W. LAWSON, M. D.	<i>Obstetrics</i>
THOMAS LINVILLE, M. D.	<i>Medicine</i>
C. B. CONKLIN, M. D.	<i>Contagious Diseases</i>
TRUMAN ABBE, A. B., M. D.	<i>Bandaging</i>
FRANK A. HORNADAY, M. D.	<i>Public Sanitation</i>
CUSTIS L. HALL, M. D.	<i>Orthopaedics</i>
WILLIAM T. DAVIS, M. D.	<i>Eye</i>
B. B. THOMPSON, R. N.,	<i>Superintendent of Hospital and Superintendent of Nurses</i>
ELSIE L. JARVIS, R. N.,	<i>Asst. Superintendent and Principal of School for Nurses</i>
MARIE J. ALLEMAN, R. N.	<i>Instructress</i>
MILDRED K. BEALL, R. N.	<i>Night Supervisor</i>
RUTH E. STIGERS, R. N.	<i>Supervisor of Obstetrical Department</i>
HENRY W. KEARNEY, M. D.	<i>Anaesthesia</i>
KATE EDMONDS	<i>Housekeeper</i>
PAUL SYLVESTER, Reg. Phar.	<i>Pharmacy</i>
CAROLYNE McKIM CHAPMAN, R. N.	<i>Instructor in Massage</i>
CLARA MOONEY, MRS.	<i>Matron, Nurses' Home</i>

HOSPITAL

The George Washington University Hospital is a general hospital located in the central part of the city, and connected with it is a Dispensary having a large out-patient service, so that the Institution affords a thorough and practical experience in medical, surgical, gynecological, obstetrical and emergency nursing and the administration work incident to a hospital.

The Staff of the George Washington University Hospital are all members of the Faculty of Medicine of the University Medical School, and the nurses receive the benefit arising from instruction and nursing cases under these trained instructors.

ADVANTAGES

Nurses in training in this Institution have the unusual advantages incident to University association, are carried as students in the University and as such participate in the commencement exercises. The class-rooms and laboratory equipment of the University Medical School, which adjoins the hospital, are used by the student nurses for class work.

The city of Washington being the Capital of the United States is especially attractive as a place of residence during the educational period of a young woman's life. There are more schools for young women in the city than in any other of its size in this country.

The cosmopolitan character of the city of Washington, its climate (not excessively cold in winter), its beauty, and its interests, which, as it is the seat of the General Government, are broad and national, make it an ideal place in which to pass three years of study.

NURSES' HOME

The Nurses' Home with a resident matron is located at 1016 12th Street N. W., a short distance from the Hospital, and furnishes the nurses excellent and adequate accommodations.

BOARD OF LADY MANAGERS

Since the establishing of the Hospital and Training School for Nurses, both these Institutions have been very materially assisted by a most efficient Board of Lady Managers. This Board has worked most energetically in the interest of both the Hospital and Training School, and by personal endeavor and financial assistance have done much to improve these institutions.

REQUIREMENTS FOR ADMISSION

Candidates must apply personally or by letter to the Superintendent of Nurses upon blank forms provided therefor. Applicants must not be less than 19 nor over 30 years of age. They must be in good physical condition and present satisfactory evidence of their preliminary educational qualifications. Graduation from a grammar school and two years' work in a high school or academy or its equivalent are necessary. Approved applicants will be taken for a probationary period of four months as vacancies may occur. Such probationers as are deemed acceptable candidates for the nursing profession, at the expiration of their probationary period, upon subscribing to the requirements of the school, will be accepted as pupil nurses.

Classes for probationers begin in January, April, July and October.

COURSE OF INSTRUCTION

The course of training (including the probationary period) covers three years and comprises theoretical and practical instruction.

Theoretical instruction is given by the members of the Faculty of Medicine of the University Medical School, and by the Principal of the School for Nurses and a graduate nurse Instructress. Practical instruction is given by demonstrations and clinics in the wards, conducted by the instructresses of the School for Nurses. By affiliation, pupils are given four months in eye, ear, nose and throat work at the Episcopal Hospital, and three months in Children's diseases, at The Children's Hospital, both in this city.

ORDER OF THEORETICAL INSTRUCTION FOR STUDENT NURSES

Preliminary Course (Four Months).

Anatomy and Physiology	Ethics
Bacteriology and Hygiene	Charting
Materia Medica	Demonstrations of Nursing
Practical Nursing	Procedures
Household Economy	

Junior Year

Anatomy and Physiology	Chemistry	Medical Nursing
Hygiene	Dosage and Solutions	Bandaging
Bacteriology	Materia Medica	Nursing Technic
	Surgical Diseases	Nursing Ethics

Intermediate Year

Anatomy and Physiology	Communicable Diseases
Materia Medica	Nursing Ethics
Dosage and Solutions	History of Nursing
Gynecology	Demonstrations in Operating
Pathology and Urinalysis	Room Technique
Massage	Obstetrics

Senior Year

Obstetrics	Special Senses
Pediatrics	Skin and Venereal Diseases
Orthopedics	Diet and Disease
Nervous and Mental Diseases	Special Vocational Lectures
Psychology	Training School, Administration

Dietetics for the sick, including (a) twelve lessons in cooking with a competent diet teacher; (b) food values, and feeding in special cases, to be taught in classes and not in lectures.

A thorough course of theoretical instruction in contagious nursing where practical experience is impossible.

REGULATIONS

I. Probationers, when admitted to the school, will require the following outfit: *Uniform.* 4 uniform dresses, 12 uniform aprons, 1 dozen pairs uniform cuffs, 1 dozen uniform collars, 3 striped underskirts, 2 laundry bags, 1 watch with second hand, 6 sets plain underclothing, raincoat, 1 pair rubbers, 2 pairs of black shoes with rubber heels, 1 kimono.

II. When probationers are accepted into the school as student nurses, an equipment of scissors, hypodermic syringe, thermometer and necessary text books will be given them and charged to their account.

III. To insure uniformity and economy the uniform sample must be secured through the Superintendent of Nurses, and no nurse will be allowed to go on duty until her outfit has been inspected and found to comply with the requirements of the school.

IV. All articles of clothing must be plainly made and marked with name in full.

V. Jewelry is not allowed to be worn on duty, and if of any value is better left at home. If brought, it will be at the risk of the owner. Watches are to be worn on tape around neck, under bib.

VI. Two hours are allowed every week day for rest, study and recreation, also one-half day after 1 p. m. each week, one-half day on Sunday, and one entire day each month.

VII. A vacation of two weeks is allowed each year.

VIII. A pupil nurse may be dismissed at any time if there is sufficient cause for such action, but no dismissal shall be made without the approval of the President of the University.

REMUNERATION

Their education is regarded as compensation for the nurses' services; however, each nurse in training receives professional instruction, home, board, laundry and medical care, besides a salary of \$12 per month (including the probation period) and an additional \$108 (\$3.00 per month) paid at the expiration of the three years course.

DIRECTORY FOR NURSES

A general directory for Graduate Nurses was established in connection with the School for Nurses and Hospital, during the first year in which the School was in operation. The object of this directory is to afford a means to physicians and patients of securing with the least loss of time, the services of nurses who have graduated from our School for Nurses. The directory is under the supervision of the Executive Committee of the Faculty of Medicine and under the direct charge of the Superintendent of Nurses.

GEORGE WASHINGTON UNIVERSITY SCHOOL OF PHARMACY

WILLIAM MILLER COLLIER, LL.D. *President of the University*
HENRY E. KALUSOWSKI, M.D., Phar.D.,
Dean of the School of Pharmacy, Professor of Pharmacy

OFFICERS OF THE NATIONAL COLLEGE OF PHARMACY

WILLIAM MILLER COLLIER, LL.D. *President of the University*
HENRY E. KALUSOWSKI, M.D., Phar.D.,
Dean and Chairman of the College
LEWIS FLEMER, Phar.D. *Vice-Chairman of the College*
CHARLES B. CAMPBELL, Phar.D., M.D. *Secretary of the College*
HERBERT C. EASTERDAY, Phar.D. *Treasurer of the College*

BOARD OF TRUSTEES

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MEMBERS OF THE COLLEGE

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HENRY LEWIS FLEMER	THOMAS E. OGRAM
GEORGE R. FLEMER	NORMAN D. PARKER

PAUL PEARSON	AUGUSTUS C. TAYLOR
MORRIS A. POZEN	FRANK B. TIPTON
R. LUCIEN QUIGLEY	F. A. TSCHIFFELY
ALBERT M. READ (honorary)	ROBERT A. VEITCH
CHARLES C. READ	S. M. WAGNER
EARLE K. RICHARDSON	CHARLES S. WALTER
FRANK R. RICHARDSON	CONRAD H. WEISS
WILLARD S. RICHARDSON	FRANK P. WELER
FRANK ASHEY ROBEY	EDWARD W. WHITESIDE
BERT H. SMYSER	HARVEY W. WILEY (honorary)
SAMUEL T. SCOTT	

SUBJECTS OF INSTRUCTION

<i>Subject</i>	<i>Year</i>
Pharmacy	First, second, third, and fourth year
Chemistry	First, second, third, and fourth year
English	First year
French	Elect one First year
German	
Spanish	
Zoology	First year
Psychology and Logic	First year
Physics	First year
Botany	Second year
Physiology	Second year
Materia Medica	Third year
Pharmacology	Third year
Pharmacognosy	Second year
Bacteriology	Third year
Clinical Microscopy	Third year
Public Health and Hygiene	Fourth year
Mercantile Pharmacy	Fourth year

GENERAL STATEMENT

The fiftieth annual session of the George Washington School of Pharmacy will commence Wednesday, September 28, 1921.

The course of instruction covers four scholastic years of thirty-two weeks, leading to the degree of Bachelor of Science in Pharmacy.

The entrance requirements and class instruction are on the same basis as required in other schools of the University.

All work offered in the School of Pharmacy meets the highest requirements of pharmaceutical instruction. Its aim is to train pharmacists so as to enable them to intelligently and efficiently perform any work that may be required from a pharmacist with scientific training. The equipment, methods of instruction and courses are arranged to attain the object of its aim, the close association of the College of Pharmacy with the George Washington University by which students in pharmacy share all the advantages and enjoy the spirit of a great educational establishment is in itself an incentive to prepare themselves to meet the requirements of the trend of pharmaceutical education.

Instruction will be given during the day.

The degree of Bachelor of Science in Pharmacy will be conferred on students who have attended the required course of instruction and pass satisfactory examinations in the same.

CLASSIFICATION AND ADVANCEMENT OF STUDENTS

Students are divided into four classes, according to their proficiency and the time spent, viz: first year, second year, third year, and fourth year.

Proficiency in all subjects is marked on a scale of 100. The passing grade in each subject is 75.

Examinations are held at the end of the course in each subject. Students who fail to appear at a regular examination will not be examined until the next regular examination except by special permission of the Advisory Committee of the Faculty. For special examinations, a fee of \$5 will be charged for each subject.

To be *advanced*, a student must not fail in more than one major or two minor subjects. It is recommended that students advanced conditioned remove their conditions in the September examinations. Students advanced conditioned must remove all such conditions before they can be again advanced.

Students who fail in more than one major or two minor subjects, will not be given re-examinations in the September examinations except by special permission of the Advisory Committee of the Faculty.

Students who fail of graduation because of deficiency in but one major or two minors, if approved by the Advisory Committee of the Faculty, may be re-examined in the September examinations for graduation. Students who are allowed this privilege, will be required to take such examinations as the Advisory Committee may direct.

Students who fail of advancement or graduation will be required to repeat a year, taking such subjects as may be directed by the Advisory Committee of the Faculty.

Students who fail of advancement after repeating any one of the first three years or who fail of graduation after repeating the final year, will not be permitted to maintain their connection with the school.

REQUIREMENTS FOR GRADUATION

Every candidate for the degree of Bachelor of Science in Pharmacy must be at least twenty-one years of age and of reputable character. He must have complied with the admission and other requirements herein set forth. He must have attended at least 80 per cent of all required instruction during four sessions of 32 weeks each in four separate years; must have satisfactorily completed all his courses and passed all his examinations. He must be present at the time specified for the final examinations, and also at Commencement. The degree is not conferred in the absence of a candidate except by special consent of the President's Council. Graduates of other accredited colleges who desire degrees must spend one year in residence at this school.

Candidates who in their work and examinations attain general averages of 90 or more will be presented to the Faculty for consideration with reference to being designated as "having graduated with distinction." If in the opinion of the Faculty such candidates have shown themselves to be possessed of more than ordinary merit, they will have inscribed upon their diplomas beneath their degree the words "with distinction."

TEXTBOOKS

The following textbooks are used in the courses in Pharmacy: U. S. Pharmacopœia; Practice of Pharmacy, Remington; Treatise on Pharmacy, Caspari.

STUDENT ACTIVITIES

Student Activities in the University are carried on under the direction of a Board of Managers, acting under resolutions adopted by the Board of Trustees. Student Activities, including athletics, debating, and the various student publications, are supported by a voluntary tax to which all students in the University are invited to subscribe. This tax not only admits the subscriber to athletic contests and entitles him to copies of the publications, but also provides for free medical attention and hospital service under certain conditions. This tax is payable like other University fees, at the office of the Treasurer of the University.

FEES AND CONTINGENT EXPENSES

Registration fee, payable on entrance	\$5
Registration fee, each subsequent year	2
Reinstatement fee	2
Tuition each year	180
Graduation fee	10
Material fee for Chemistry	10
Material fee for Physics	10
Materials and Microscope for Zoology	10
Materials and breakage for Pharmacy	10

This includes all laboratory fees and charges for material used in Chemistry and practical Pharmacy. Students will, however, be required to pay all charges for injury to microscopes, apparatus and other college property.

All breakage and loss not directly traceable to the individual student is assessed pro rata, and any unforfeited balance will be returned to the student at the expiration of the course.

Persons not candidates for the degree of Bachelor of Science in Pharmacy who take courses in Bacteriology or Clinical Microscopy will be charged a fee of \$6 for the use of the microscope in each of these courses. Should such a student take more than one of the courses mentioned, in any one school year, he will be charged a single fee of \$6 for microscope rental.

Students who elect to take the regular four year course in five years will be required to pay the full tuition for the first four years and will receive the fifth year without additional charge.

Persons are allowed to register as auditors for the tuition fees without being required to take active part in the exercises or to pass examinations but no credit will be allowed for such attendance.

No registration will be accepted for less than a full half-year, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean. Registration in the Pharmacy School is for a period not to exceed one year at a time and acceptance by the School of a student's registration fee does not in any way obligate the School to accept that student for any subsequent year.

Registration, other fees and deposits are due in full advance. Tuition may be paid in eight monthly installments in advance. Students who are unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond of \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1 of the current school year. All fees are payable at the office of the Treasurer.

WITHDRAWALS

Withdrawals will be granted only on recommendation of the Dean and the approval of the President.

A certificate of work actually done will be given to any student granted a withdrawal or a transfer to another school during the session. A written request for withdrawal or transfer must be filed with the Dean and no permission to withdraw or transfer, and no certificate of work done will be given a student unless all fees and dues chargeable against him up to the end of the month in which he withdraws have been paid.

BOARD AND ROOMS

A register of boarding houses is kept by the Treasurer. Accommodations cost from \$30 to \$50 a month.

For catalogues, application blanks, and further information, address—

THE DEAN,
School of Pharmacy,
The George Washington University,
808 Eye Street N. W., Washington, D. C.

LAW SCHOOL

FACULTY

WILLIAM MILLER COLLIER, A.M., LL.D.	<i>President of the University</i>
MERTON LEROY FERSON, A.M., LL.B.	<i>Dean and Professor of Law</i>
WALTER COLLINS CLEPHANE, LL. M.	<i>Professor of Law</i>
EDWIN CHARLES BRANDENBURG, LL.M.	<i>Professor of Law</i>
ARTHUR PETER, LL.B.	<i>Professor of Law</i>
JOHN PAUL EARNEST, A.M., LL.M.	<i>Professor of Law</i>
JOHN WILMER LATIMER, LL.B.	<i>Professor of Law</i>
WENDELL PHILLIPPS STAFFORD, A.M., LL.D., Litt.D.	<i>Prof. of Law</i>
*WILLIAM CABELL VAN VLECK, A.B., LL. B.	<i>Professor of Law</i>
CHARLES SAGER COLLIER, A.B., LL.B.	<i>Professor of Law</i>
LYMAN P. WILSON, B.S., J.D.	<i>Professor of Law</i>
LOYD HALL SUTTON, S.B., LL.B.	<i>Associate Professor of Law</i>
JOHN MONTEITH MCFALL, A.M., LL.B.	<i>Assistant Professor of Law</i>
ALBERT LEVITT, A.B., LL.B.	<i>Assistant Professor of Law</i>
HECTOR GALLOWAY SPAULDING, A.B., LL. B.	<i>Ass't Professor of Law</i>
THOMAS CLAFFEY LAVERY, LL.B.	<i>Assistant Professor of Law</i>
WILLIAM HENRY STAYTON, Sr., LL.M.	<i>Lecturer in Law</i>
LEVI RUSSELL ALDEN, A.M., LL.B.	<i>Lecturer in Law</i>
GILBERT LEWIS HALL, A.B., LL.B.	<i>Lecturer in Law</i>
FRANK SEYMOUR SMITH, A.B., LL.M.	<i>Lecturer in Law</i>
SPENCER GORDON, A.B., LL.B.	<i>Lecturer in Law</i>
CHARLES EDWARD HILL, Ph.D.	<i>Lecturer in Law</i>
HARLEIGH HOLROYD HARTMAN, A.M., LL.M., D.C.L.	<i>Lec'r in Law</i>
FRED C. O'CONNELL, LL.M.	<i>Clerk of the Moot Court</i>
JOHN WILLIAM TOWNSEND, LL.B.	<i>Secretary</i>

MOOT COURT OF APPEALS

MARTIN AUGUSTINE KNAPP, A.M., LL.M.	<i>Chief Justice</i>
STANTON JUDKINS PEELE, LL.B.	<i>Associate Justice</i>
BRAINARD WARNER PARKER, LL.B.	<i>Associate Justice</i>

LIBRARY

FRANCES ELIZABETH PARK, Ph.B.	<i>Librarian</i>
MARY M. CONNELLY	<i>Assistant Librarian</i>
ALICE MARY DODD	<i>Assistant Librarian</i>
GLENN ENO	<i>Assistant Librarian</i>

GENERAL STATEMENT

History.—The Law School, established in 1865, is the oldest in the city of Washington. Its course of instruction for the degree of Bachelor of Laws, originally requiring two years, was increased in 1898 to three years. A year of graduate work was added in 1877 leading to the degree of Master of Laws. The curriculum has since been increased by a course of study leading to the degree of Master of Patent Law.

*On leave of absence, 1920-1921

Member of Association of American Law Schools.—The Law School was one of the group of law schools which in 1900 organized the Association of American Law Schools and it has remained a member of the Association since that time. This Association includes fifty-three of the most progressive law schools of the country and is committed to the policy of advancement in legal education. As this school maintains the standards of the Association, work certified by it is given a maximum of credit by other law schools of the country. This enables students who are unable to complete their studies in Washington to continue them at other institutions with a minimum loss of time and work. The registration of the Law School for the academic year 1920-21 was the second largest in the Association.

Purpose of Course.—The School aims to give a thorough legal training to students whose education and maturity fit them to pursue serious professional study. Nearly sixty per cent of its students have had college training and their average age is over twenty-five years. A preliminary course in liberal arts is encouraged and the University permits the first year of law work to be counted as the fourth year of college work for the degree of Bachelor of Arts, thus enabling students to obtain both the academic and professional degrees in six years. (See *Degrees.*)

Method of Instruction.—The method of instruction followed is designed to instill correct modes of legal study, to train the mind in legal reasoning, and to give a thorough grasp of fundamental legal principles. The student studies leading cases—the earlier cases which establish a principle, the later cases which show its qualifications. This study is supplemented by class-room discussion and instruction. Thus while the student is being trained to analyze and to discriminate, he at the same time masters the principles of law, sees the reasons on which they are based, and observes the influence on their development of successive political, economic, and social theories. The method is most practical. The student has always before him actual problems and their solution by the ablest judges of England and America. He begins under his teacher's guidance the work he must do when he enters practice. In no other way can the future lawyer acquire such power to solve the new problems arising from the rapidly changing social and economic conditions of life.

"The only way to clarify and simplify our law as a whole is to reach the lawyer in the making and mold his habits of thought by adequate instruction and training so that when he comes to the Bar he will have learned to think not merely in terms of law but in

terms of jurisprudence. The living principle of the case system of instruction in our law schools is that the student is required by a truly scientific method of induction to extract the principle from the decision and continually to state and restate for himself a system of law evolved from its history. He is thus preparing not merely to accept formally dogmatic statements of principles but to receive and assimilate and make his own the systematic thought and learning of the world in the science of jurisprudence. With a Bar subjected generally to that process of instruction, the more general systematic study of jurisprudence would follow naturally and inevitably, and the influence of that study would be universal; and from that condition would evolve naturally the systematic restatement of our law, by men equal to that great work."^a

This inductive case system is the antithesis of the lecture and illustrative case method which is often mistaken for it. The case method is now used in over ninety per cent of the schools in the Association of American Law Schools.

The substantive law is taught almost wholly by professional teachers employing the case method and giving all their time to the school; the practice courses are conducted by lawyers in active practice and by judges.

Scope of Course.—The course of study is not local in its scope but constitutes a thorough preparation for the practice of law in any English speaking jurisdiction. It satisfies the professional study required for admission to the Bar examinations of the District of Columbia and all other jurisdictions of the United States. The school has conferred over 3,300 degrees, and its graduates are now practicing in every state of the Union, and in foreign countries.

ADVANTAGES OF WASHINGTON FOR THE STUDY OF LAW

The city of Washington has unusual attractions for students and particularly for students of law. It lies between the North and the South. It is a residential city of rare beauty, and its population is drawn from all over the United States. The library facilities of the city, both general and legal, are unexcelled. It is unique in the extent of its legal machinery. It is the seat of Congress, the Supreme Court of the United States, the Department of Justice, the United States Court of Claims, the United States Court of Customs Appeals, and of the District of Columbia Court of Appeals, Supreme Court, and Municipal Court, which exercise the dual function of state and federal courts. By attending the sessions of these various bodies students can familiarize themselves with

^a From the address of Hon. Elihu Root, President of the American Bar Association, August, 1916.

all branches of legal procedure and keep in touch with current legal thought while pursuing their studies. The law student also has the advantage of being able to visit the various Executive Departments, including the Federal Trade Commission, the Interstate Commerce Commission, the Internal Revenue Bureau and other legal bureaus of the Federal Government.

LOCATION

The Law School occupies its own building at 1435 K Street, N. W., and is easily accessible from all parts of the city. The building, which was formerly occupied by the Department of Justice, was purchased in 1920 and remodeled to fit the needs of the Law School. It has nine class rooms with a seating capacity of about 1,000 students, seven professors' offices besides the business office, a large, well-lighted library, and two rest rooms. Four class rooms are arranged and furnished as moot courts.

LIBRARY

A well-equipped working library comprising more than 8,500 volumes is open to students from 9 a. m. to 11 p. m. during week days, and 2 to 6 p. m. Sundays. Competent librarians are in charge and will give students assistance in the use of books.

The library contains the complete decisions of the highest courts of forty-seven states and the District of Columbia, the complete reports of the United States Supreme Court and the other federal courts, the complete National Reporter System, the Century, Decennial, Key number and United States Supreme Court Digests, the various encyclopedias of law, the Lawyers Reports Annotated, the American Decisions, American Reports and American State Reports, the English Common Law and Chancery Reports, the English Reprint, the English Law Reports and Law Journal Reports since 1865, and about 600 standard text books and legal periodicals.

In addition to these facilities the students have free access to the Congressional Library and other public libraries.

ACADEMIC YEAR AND REGISTRATION

The academic year 1921-22 begins Wednesday, September 28, and closes Wednesday, June 7. The year is divided into two half-years, the second beginning January 30. The course is so arranged that a student may enter the second half-year and be graduated three years from that time, receiving his degree at the Winter Convocation held on or about February 22 of each year.

Students are urged to register at the beginning of the half-year. Those who register later than three weeks after the opening of the half-year will be restricted to registration for such work only as in the opinion of the faculty they can successfully carry.

HOURS OF INSTRUCTION

The hours of instruction are 7.50-8.40 a. m., 9.00-10.50 a. m., and 5.10-6.50 p. m. A student can, if he so desires, confine his work either to the forenoon or to the afternoon and graduate in three years. Students who desire, or are compelled by circumstances, to support themselves by employment in the Government Service or elsewhere, or who desire to obtain practical experience in an attorney's office in addition to their work in law school, will find this arrangement of hours especially desirable. Such students may complete the full course for the degree, confining their attendance entirely from 5.10-6.50 p. m., or attending partly from 7.50-8.40 a. m., and partly from 5.10-6.50 p. m. Subjects offered from 7.50-8.40 a. m. are elective courses open to second and third year students.

ADMISSION

Both men and women are admitted to the Law School on the same terms.

1. *For the Degree of Bachelor of Laws.*—The requirements for admission to the course leading to the degree of Bachelor of Laws may be satisfied in either of the following ways:

a. By the presentation of a diploma or certificate of graduation from the classical, scientific, or equivalent course of a college or university.

b. By the presentation of certificates from a college or university, or from an approved high school or preparatory school, showing the successful completion of at least fifteen high school units, which are broadly equivalent to a four-year high school course. A unit represents approximately one year of study of a major subject in a high school. Applicants qualifying for admission under this requirement must be at least eighteen years of age. Those presenting high school credits only should have them certified on the blank forms which they may obtain from the Secretary of the Law School.

The fifteen units may be made up from the following subjects:
(The Roman numerals indicate the year of study in the subject.)

Subjects	Units
English, I, II, III, IV _____	4
Latin, Elementary, I, II _____	2
Advanced, III, IV _____	2

<i>Subjects</i>	<i>Units</i>
Greek, Elementary, I, II	2
Advanced, III	1
French, Elementary, I, II	2
Advanced, III, IV	2
German, Elementary, I, II	2
Advanced, III, IV	2
Spanish, Elementary, I, II	2
History, Ancient	1
Mediaeval and Modern European	1
English	1
American	1
Mathematics	
Algebra, Elementary and Intermediate	1½
Advanced	½
Geometry, Plane	1
Solid	½
Plane Trigonometry	½
Science	
Physics	1
Chemistry	1
Physiography	1
Biology	1
Botany	½
Zoology	½
Physiology	½
Psychology	½
Political Economy	½
Civil Government	½
Commercial High School Subjects	
Accounting and Finance	1
Bookkeeping	1
Business Organization	1
Commercial Law	1
Commercial History	½
Commercial Geography	½
Government and Industrial Problems	1

II. *For the Degree of Master of Laws or Master of Patent Law.*—Candidates for these degrees must be at least twenty-one years of age and hold the degree of Bachelor of Laws from an institution substantially complying with the requirements of the Association of American Law Schools.

III. *As Special Students.*—Persons who can not qualify as candidates for a degree but are over twenty-one years of age and have had such educational training and practical experience as should enable them to pursue satisfactorily the study of law, may be admitted as special students by consent of the Dean.

ADVANCED STANDING

Students from other law schools which substantially comply with the requirements of the Association of American Law Schools may receive equivalent credit, not exceeding two years' work. Such students must have been qualified to enter this school when they began the study of law. The right is reserved to refuse such credit, in whole or part, save conditionally or after examination, and credit given may be withdrawn for subsequent poor work.

Applicants of whom examination may be required, can take the regular examinations or those held at the beginning of each academic year. (See *Examinations.*)

No credit will be given for studies pursued in a college or high school before entering on the regular study of law, or for law studies pursued in a law office or through a correspondence course.

SUBJECTS OF INSTRUCTION

The course of instruction extends through a period of at least three years. For the degree of Bachelor of Laws twelve hours class work a week are necessary to complete the course in three years. Ten hours a week for a year in subjects not counted towards the Bachelor's degree are required for the degree of Master of Laws or Master of Patent Law. (See *Degrees.*)

The subjects marked with an asterisk are prescribed for the degree of Bachelor of Laws. The student may elect the remainder of his subjects. Third-year students may elect subjects of the second year not previously studied. The selection of the subjects must be made in all cases within ten days after the beginning of the half-year.

Students devoting their whole time to the study of law may, with the permission of the Dean, take work not exceeding fifteen hours a week. Excess credits may be applied toward the degree of Master of Laws or Master of Patent Law. Students with substantial outside employment may not register for more than twelve hours and are urged to carry less, and to devote more than three years to the course.

FIRST YEAR SUBJECTS

(The schedule of classes for the academic year 1921-22 will not be ready for distribution until after September 1, 1921. The following is a list of subjects offered during 1920-21 and is not an announcement of courses for 1921-22, although few changes are anticipated. Text books and instructors may be changed in some instances.)

*COMMON LAW ACTIONS. *One hour a week for one half-year.* Introductory to study of law. Substantive and adjective law; courts; steps in an action; original writ; scope of actions; growth of new actions. *Sunderland's Cases on Common Law Pleading.* MR. LAVERTY.

*CONTRACTS. *Three hours a week throughout year.* Simple contracts: offer, duration and termination thereof, acceptance, consideration; contracts under seal, including thereunder formalities of execution, delivery and consideration; parties affected by contracts: beneficiaries, assignees, joint obligors and obligees; performance of contracts: express and implied conditions, impossibility. *Williston's Cases on Contracts.* MR. FERGUSON and MR. LAVERY.

CRIMINAL LAW AND PROCEDURE. *Three hours a week for one half-year.* Sources of the criminal law; intent and act; attempts; insanity as a defense; historical development of crimes and statutory changes. The arrest; bail; the grand jury; the indictment; trial; pleas; modification of early practice, and statutory changes. *Mikell's Cases on Criminal Law and Procedure.* MR. EARNEST.

*EQUITY I. *Two hours a week for one half-year.* The nature and underlying principles of equity. Specific reparation and prevention of torts. *Ames' Cases on Equity Jurisdiction, Volume I.* MR. SPAULDING.

*PERSONAL PROPERTY. *Three hours a week for one half-year.* Distinction between personal and real property; nature of and rights based upon possession; some methods of acquiring title to chattels; liens and pledges; conversion. *Warren's Cases on Property.* MR. SPAULDING.

PRINCIPLES OF LEGAL LIABILITY. *Three hours a week for one half-year.* Nature of an act; causation of injury; proximity or remoteness of injury as affecting tort or criminal liability of the actor; effect of interposition of other causes including natural forces and acts of animals and human beings; excuses for acts causing injury including duty, public authority, defense of person and property and consent of injured person. *Beale's Cases on Legal Liability.* MR. LAVITT.

*Prescribed Subjects.

***REAL PROPERTY I.** *Two hours a week for one half-year.* Fixtures; the feudal system; estates; non-possessory interests in land; joint ownership; disseisin; uses and trusts; rights incident to possession; profits; licenses; easements; covenants running with the land; rents; waste; public rights. *Warren's Cases on Real Property, Bigelow's Cases on Rights in Land.* MR. WILSON.

***TORTS.** *Three hours a week first half, two hours second half-year.* Negligence; duty of care of occupant of land toward those coming on it; trespass to the person, to real and personal property; contributory negligence; liability for fire or explosives; liability of owner of animals; deceit; libel and slander; malicious prosecution; unfair competition; strikes and lock-outs. *Pound's Cases on Torts.* MR. COLLIER.

SECOND YEAR SUBJECTS

(The schedule of classes for the academic year 1921-22 will not be ready for distribution until after September 1, 1921. The following is a list of subjects offered during 1920-21, and is not an announcement of courses for 1921-22, although few changes are anticipated. Text books and instructors may be changed in some instances.)

AGENCY. *Three hours a week for one half-year.* Requisites for creation of the agency relation; power of the agent to subject the principal to tort; contract liability to third persons; responsibility of the agent to third persons; liabilities in case of undisclosed principal; duties of principal and agent inter se; delegation of powers by the agent; ratification; termination of agency. *Wambaugh's Cases on Agency.* MR. LAVERY.

***BILLS AND NOTES.** *Three hours a week for one half-year.* Form and essential requisites of negotiable instruments; delivery; indorsement; liability of maker, acceptor, drawer, indorser, and of person transferring by delivery. *Colson's Huffcut's Cases on Negotiable Instruments.* MR. SPAULDING.

***COMMON LAW PLEADING.** *Two hours a week for one half-year.* The declaration, necessary allegations, separate counts, joinder of causes; pleas, the common traverse, the special traverse, the general issues, confession and avoidance, estoppel, abatement; replications; amendment, aider and replender. *Tyler's Stephen on Pleading, Sunderland's Cases on Common Law Pleading.* MR. CLEPHANE and MR. WILSON.

DAMAGES. *Two hours a week for one half-year.* Exemplary; liquidated; nominal; direct; consequential; avoidable; counsel fees;

*Prescribed Subjects.

certainty; compensation; physical and mental suffering; aggravation and mitigation; value; interest; special rules in certain tort and contract actions. *Beale's Cases on Damages*. MR. LEVITT.

DOMESTIC RELATIONS. *Two hours a week for one half-year*. Marriage, divorce and separation; personal and property rights and liabilities of husband and wife; parent and child; infancy. *Kale's Cases on Persons*. MR. LEVITT.

*EQUITY II. *Two hours a week for one half-year*. Rules regulating specific performance of contracts including the doctrine of equitable conversion, and the more important defenses to a specific performance such as the statute of frauds, fraud, hardship, misrepresentation and concealment. *Ames' Cases on Equity Jurisdiction, Volume I*. MR. SPAULDING.

EQUITY III. *Two hours a week for one half-year*. Bills of interpleader; bills of peace; bills Quia Timet; cloud on title; reformation and rescission; mistake of law and mistake of fact. *Ames' Cases on Equity Jurisdiction, Volume II*. JUSTICE STAFFORD.

EQUITY PLEADING AND PRACTICE. *One hour a week for one half-year*. Parties; process; bills; demurrers; answers; pleas; disclaimers; cross-bills; replications; amendments; practice; injunctions; receivers. *Jones on Equity Pleading and Practice*. MR. CLEPHANE.

*EVIDENCE. *Three hours a week for one half-year*. Judicial notice; burden of proof and presumptions; admissions and confessions; character; opinion evidence; the hearsay rule and its exceptions; the privileges and disqualifications of witnesses; the examination of witnesses; writings. *McKelvey on Evidence, Thayer's Cases on Evidence*. MR. PETER and MR. WILSON.

INSURANCE. *Two hours a week for one half-year*. Marine, fire and life insurance; validity of the policy as affected by insurable interest; concealment; representation; warranty and other matters; rights of the insured and of the insurer under the policy; rights of assignees and beneficiaries. *Wambaugh's Cases on Insurance*. MR. MCFALL.

QUASI-CONTRACTS. *Two hours a week for one half-year*. Obligations imposed by law which are enforceable by action of assumpsit. *Thurston's Cases on Quasi-Contracts*. MR. LEVITT.

*REAL PROPERTY II. *Two hours a week throughout year*. Titles to real estate; possession; seisin and disseisin; adverse possession; prescription; accretion; modes of conveyance; execution of deeds;

* Prescribed Subjects.

the property conveyed; easements by implication; covenants for title; estoppel by deed; priorities and recording. *Gray's Cases on Real Property* (2d ed.), Vol. III, and assigned readings. MR. WILSON.

SALES. *Three hours a week for one half-year.* Subject matter of a sale of personal property; the passing of title as affected by the goods being specified or unspecified, the contract being executed or executory, the use of documents of title, and shipments c. o. d.; effect of fraud and of retention of possession; rights and remedies of the seller; rights and remedies of the buyer. *Williston's Cases on Sales* (3d ed.) MR. COLLIER.

THIRD YEAR SUBJECTS

(The schedule of classes for the academic year 1921-22 will not be ready for distribution until after September 1, 1921. The following is a list of subjects offered during 1920-21, and is not an announcement of courses for 1921-22, although few changes are anticipated. Text books and instructors may be changed in some instances.)

ADMIRALTY. *Two hours a week throughout year.* Jurisdiction; admiralty liens; salvage; general average; charter parties and contracts of affreightment; marine insurance; The Harter Act; The Limited Liability Act; marine documents; procedure in admiralty. *Ames' Cases on Admiralty Jurisdiction*, and assigned readings. MR. STAYTON and MR. ALDEN.

BANKRUPTCY. *Two hours a week for one half-year.* History of the law; jurisdiction and procedure in Courts of Bankruptcy and before Referees; effect upon civil litigation of bankruptcy proceedings; voidable preferences; jurisdiction over appeals, etc. MR. BRANDENBURG.

CONFLICT OF LAWS. *Two hours a week throughout the year.* Jurisdiction: of law over persons and things; of courts; in rem; in personam; quasi in rem; and for divorce. Creation and enforcement of foreign rights; limitations and enforcement of such rights; remedies, including rights of action and procedure; particular classes of rights, including personal rights, property rights, tort rights, contract rights; administration of estates. *Lorenzen's Cases on Conflict of Laws.* MR. LEVITT.

CONSTITUTIONAL LAW. *Two hours a week throughout year.* Legislative, executive and judicial powers; the relation of nation and states; District of Columbia and territories; the contract clause; ex post facto laws; fourteenth amendment; commerce clause, etc. *Wambaugh's Cases on Constitutional Law.* MR. COLLIER.

*CORPORATIONS. *Two hours a week throughout year.* General principles of corporation law including the corporation's relations with the state, its promoters, its stockholders, and its creditors, and the rights and obligations arising therefrom. *Warren's Cases on Corporations (2d ed.)*. MR. LAVERY.

FEDERAL PROCEDURE. *Two hours a week for one half-year.* Source of Federal jurisdiction; the law as administered by Federal Courts; jurisdiction and procedure; appellate jurisdiction of Circuit Court of Appeals and Supreme Court of the United States; practice in Court of Claims, and other Federal Courts. MR. BRANDENBURG.

INCOME TAX. *Two hours a week for one half-year.* Constitutionality and construction of United States statutes on income tax and excess profits tax. *Internal Revenue Laws, 1920*. MR. GORDON.

INTERNATIONAL LAW. *Two hours a week for one half-year.* Sources; jurisdiction; the pacific relations of states; the belligerent relations of states; war rights as to private property; blockade; contraband; and the rights and duties of neutrals. *Evans' Cases on International Law*. MR. HILL.

LEGAL BIBLIOGRAPHY AND BRIEF MAKING. *One hour a week for one half-year.* Where and how to find the law; how to use decisions and statutes; trial brief; appeal brief. JUDGE LATIMER.

LEGAL TACTICS AND ETHICS. *One hour a week for one half-year.* Duties of attorneys; ethics; office practice; common law practice; summary judgments; attachments; examination of witnesses; appellate practice; extraordinary legal remedies. MR. CLEPHANE.

*MOOT COURT. *Two hours a week throughout year.* Pleadings; trials before judge; trials before jury; appellate work. There are four nisi prius courts, one Equity, two Circuit, and one Criminal, and a Court of Appeals. The proceedings are conducted as in a regular court. Statements of fact are furnished the students who must determine the court in which to sue, frame their pleadings, and conduct the cases to a conclusion in accordance with the rules of actual practice. MESSRS. CLEPHANE, HALL and EARNEST and JUDGE LATIMER.

MORTGAGES. *Two hours a week for one half-year.* The two existing theories as to mortgage security; real estate and chattel mortgages, considering in detail the various forms of mortgage commonly in use in commercial communities, together with the rights and liabilities arising thereunder. *Kirchwey's Cases on Mortgages (2d ed.)*. MR. MCFALL.

*Prescribed Subjects.

ORGANIZATION AND MANAGEMENT OF CORPORATIONS. *One hour a week for one half-year.* Promotion; selecting domicile; capitalization; charter; by-laws; meetings; stockholders; directors; officers; stock; bonds; voting trusts. *Clephane on the Organization and Management of Corporations.* MR. CLEPHANE.

PARTNERSHIP. *Two hours a week for one half-year.* Formation; title to partnership property; partnership liability; rights and duties of partners inter se; rights and remedies of creditors. *Ames' Cases on Partnership.* JUSTICE STAFFORD.

PATENT LAW (SUBSTANTIVE) AND PATENT OFFICE PRACTICE. *Two hours a week throughout year.* Substantive Patent Law: subjects of patents; invention; anticipation; statutory bars; utility; parties; reissues; disclaimers; extent of monopoly; state and federal regulation; transfers of title; licenses; construing claims; infringement. Patent Office Practice: attorneys; application papers; examinations; amendments; division; double patenting; interferences; interference practice; appeals; abandonment; renewals; public use proceedings; issue. MR. SUTTON.

PATENT LAW PRACTICE. *Two hours a week for one half-year.* Trial of patent law cases in moot court. MR. SUTTON.

PREPARATION OF LEGAL INSTRUMENTS. *One hour a week for one half-year.* Contracts; deeds; acknowledgement and proof of deeds; mortgages and deeds of trust; leases; bills of sale; chattel mortgages; release of mortgages or deeds of trust; powers of attorney; assignments; wills. JUDGE LATIMER.

PUBLIC SERVICE COMPANIES AND THE INTERSTATE COMMERCE ACT. *Two hours a week throughout year.* An introductory consideration of the rights, liabilities and duties of public service companies in general, followed by a more minute study of the duties and obligations of carriers including those of interstate carriers as regulated by the Interstate Commerce Act. *Beale and Wyman's Cases on Public Utilities.* MR. HARTMAN.

TRUSTS. *Two hours a week throughout year.* The nature of a trust as distinguished from debt, bailment, equitable charge and executorship; the requisites for the creation of a trust including trustee, cestui que trust, object, consideration and the effect of the Statute of Frauds; the nature of the cestui's interest; the transfer of trust property by act of the parties, by death, by marriage, by insolvency and acts of creditors; the duties of the trustee in the administration of his trust. Resulting and constructive trusts. *Scott's Cases on Trusts.* MR. FERSON and MR. WILSON.

WILLS AND ADMINISTRATION. *Three hours a week for one half-year.* History of wills; right to make a will; what is disposable under a will; form, execution, and attestation; revocation; who is entitled to administer upon an estate; distribution of an intestate's personalty; descent of realty; probate; letters testamentary and of administration; duties of executors and administrators. *Costigan's Cases on Wills.* MR. SMITH.

SUMMER SESSION 1921

The Summer School for 1921 will cover a period of twelve weeks, divided into two sessions of six weeks each. Classes in the first session begin Monday, June 20th, and end Saturday, July 30th. Examinations will be held August 1st, 2nd and 3rd. Classes in the second session begin Thursday, August 4th, and end Wednesday, September 14th. Examinations will be held September 15th, 16th and 17th.

The purpose of the Summer School is to lighten and supplement the work of the regular session by enabling students to complete subjects usually taken in the regular session, or to shorten the period of study for a degree.

Subjects have been selected to afford proper work both for students beginning the study of law and for advanced students. All the subjects selected will be conducted by regular members of the faculty and the character of instruction and the amount and grade of work required will be the same of that of the regular session.

Registration should be completed by the opening date of each session. Students may register for one or both sessions.

Students who are qualified for admission as candidates for degrees will be given two semester-hours credit for each subject completed.

Employed students may obtain a maximum of four semester-hours credit in each session by attendance in two subjects aggregating ten periods per week.

Students without substantial outside employment may obtain a maximum of six semester-hours credit in each session by attendance in three subjects aggregating fifteen periods per week.

The schedule is so arranged that work may be taken in the morning or in the late afternoon, or part in the morning and part in the late afternoon.

Classes in morning subjects are held from Tuesday to Saturday, inclusive; classes in afternoon subjects from Monday to Friday, inclusive. Monday, July 4, and Monday, Sept. 5, will be holidays.

FIRST SESSION

FIRST YEAR SUBJECTS

Contracts.—Four semester credits. (Continued through second session.) Williston's Cases on Contracts. Monday and Thursday, 5.10 to 6.50; Wednesday, 6 to 6.50 p. m. Mr. FERSON.

Elementary Procedure.—Two semester credits. Scott's Cases on Civil Procedure. Tuesday and Friday, 5.10 to 6.50; Wednesday, 5.10 to 6 p. m. Mr. LAVERY.

Personal Property.—Two semester credits. Warren's Cases on Property. Tuesday to Saturday, inclusive, 7.50 to 8.40 a. m. Mr. VAN VLECK.

SECOND AND THIRD YEAR SUBJECTS

Code Pleading.—Two semester credits. Sunderland's Cases on Code Pleading. Tuesday and Friday, 5.10 to 6.50; Wednesday, 5.10 to 6 p. m. Mr. WILSON.

Damages.—Two semester credits. Mechem and Gilbert's Cases on Damages. Tuesday to Saturday, inclusive, 7.50 to 8.40 a. m. Mr. LAVERY.

Conflict of Laws.—Four semester credits. (Continued through second session.) Lorenzen's Cases on Conflict of Laws. Monday and Thursday, 5.10 to 6.50; Wednesday, 6 to 6.50 p. m. Mr. VAN VLECK.

Sales.—Two semester credits. Williston's Cases on Sales (3rd Ed.) Tuesday and Friday, 5.10 to 6.50; Wednesday, 5.10 to 6 p. m. Mr. FERSON.

Suretyship.—Two semester credits. Ames' Cases on Suretyship. Monday and Thursday, 5.10 to 6.50; Wednesday, 6 to 6.50 p. m. Mr. WILSON.

SECOND SESSION

FIRST YEAR SUBJECTS

Contracts.—Continuation of course begun in first session. Monday and Thursday, 5.10 to 6.50; Wednesday, 6 to 6.50 p. m. Mr. LAVERY.

International Law.—Two semester hours. Tuesday to Saturday, inclusive, 7.50 to 8.40 a. m. Mr. HILL.

Legal Liability.—Two semester credits. Beale's Cases on Legal Liability. Tuesday and Friday, 5.10 to 6.50; Wednesday, 5.10 to 6 p. m. Mr. WILSON.

SECOND AND THIRD YEAR SUBJECTS

Admiralty.—Two semester credits. Tuesday and Friday, 5.10 to 6.50 p. m.; Wednesday, 5.10 to 6 p. m. Ames' Cases on Admiralty Jurisdiction. Mr. ALDEN.

Conflict of Laws.—Continuation of course begun in first session. Monday and Thursday, 5.10 to 6.50; Wednesday, 6 to 6.50 p. m. Mr. VAN VLECK.

Municipal Corporation.—Two semester credits. Tuesday and Friday, 5.10 to 6.50 p. m.; Wednesday, 5.10 to 6 p. m. Macy's Cases on Municipal Corporations. Mr. LAVERY.

Preparation of Pleadings.—Two semester credits. A course to supplement and illustrate the theory of pleading. (Prerequisite: Common Law or Code Pleading.) Special Assignments. Monday and Thursday, 5.10 to 6.50; Wednesday, 6 to 6.50 p. m. Mr. WILSON.

Quasi-Contracts.—Two semester credits. Tuesday to Saturday, inclusive, 7.50 to 8.40 a. m. Thurston's Cases on Quasi-Contracts. Mr. VAN VLECK.

PUBLIC SPEAKING AND DEBATING

Excellent facilities for training in public speaking and parliamentary law are afforded by the Columbian Debating Society, which has been organized in the Law School, and meets weekly for debate. Membership in this society is optional, but its work is encouraged by the faculty, and students are advised to take part in its exercises.

Intercollegiate debates are also held. Membership on the teams which represent the University in these contests must be won in preliminary contests held for such purpose. These debates are conducted under the supervision of a committee of the University Faculty.

ATTENDANCE, RECITATIONS, EXAMINATIONS, GRADES, AND ELIMINATION OF STUDENTS

Attendance and Recitations.—No student, except by special permission of the Dean, will be allowed to take an examination on any subject unless he shall be regularly registered and have been in regular attendance upon the classes and have done all the work required in the course of instruction upon that subject. A student who is absent over ten per cent of the class hours in any subject will be denied credit unless his absences are excused by the Dean.

Regular Examinations.—Written examinations are held at the close of the first half-year in subjects which are then completed and at the close of the year in all other subjects. All students are required to take the regular examinations in the subjects pursued, unless excused by the Dean.

Grades.—At all examinations the grading of students will be indicated by the letters A, B, C, D, E, and F, representing, respectively, Excellent, Good, Satisfactory, Fair, Conditioned, and

Failed. A student receiving the grade F (failed) in any subject will be required to repeat the course. A student receiving the grade of E (conditioned) in any subject will be required to repeat the course unless he pass the next regular examination for the removal of conditions with a grade of at least C.

Examinations for the Removal of Conditions.—Regular examinations for the removal of conditions are held during the first week of each academic year. A special examination for the removal of conditions is held at the end of each academic year for the benefit of candidates for the Bachelor's degree who have been conditioned in not more than four hours during the first half of their last year. Application for permission to take these examinations must be made in writing to the Secretary of the Law School not later than three days before the date for which the examination is scheduled.

Elimination of Students.—A student must obtain a grade of "D" or better in at least three-fourths of the total number of semester-hours for which he registers, and any student who fails to do so shall thereby automatically be excluded from further work in the school. He may be reinstated upon such a showing and upon such conditions as may be required by the Committee on Scholarship. The instructors of the first-year class are a committee to examine the students' records, with power to warn, to place on probation, and to refuse reregistration to any student whose work is deemed unsatisfactory. The committee examines the records of all students immediately after the mid-year examinations and again after the final examinations.

DEGREES

1. *Bachelor of Laws.*—The degree of Bachelor of Laws will be conferred upon regular students who have studied law for a period of at least three years and passed satisfactory examinations with an average grade of at least C on required and elective subjects aggregating thirty-six year hours, and whose attendance and conduct have been satisfactory to the faculty.

The degree of Bachelor of Laws with distinction will be awarded students whose average percentage in all subjects is equivalent to the grade of A.

2. *Master of Laws.*—The degree of Master of Laws will be conferred upon students who have completed the work in subjects not counted for the Bachelor of Laws degree covering a minimum of ten year-hours with a grade of C or better in each subject and whose attendance and conduct have been satisfactory to the faculty. The subject of International Law offered by the Faculty of Arts and Sciences may be counted toward this degree. The degree will

not be conferred until one year after the receipt of the degree of Bachelor of Laws.

3. *Master of Patent Law.*—Students who have qualified for the degree of Master of Laws may elect instead the degree of Master of Patent Law, provided that they have included in their course the Patent Law subjects and Federal Procedure. This degree will not be conferred until one year after receipt of the degree of Bachelor of Laws.

Candidates for degrees who have been absent from school for two successive years shall be entitled to continue the course only on such terms as the faculty may prescribe at the time of re-entering.

COMBINATION SIX-YEAR COURSE FOR DEGREES OF BACHELOR OF ARTS AND BACHELOR OF LAWS

The University permits one year of professional work in the Law School to be counted toward an academic degree. The degree of Bachelor of Arts will be conferred on students who have completed three years of college work (90 semester-hours, 12 semester-hours of which must be completed in the Department of Arts and Sciences of George Washington University, including one of the six groups of subjects there prescribed), and the first year in the Law School; the degree of Bachelor of Laws on completing the whole six years of the combination course.

PRIZES

The John B. Larner Gold Medal.—A gold medal donated by Mr. John Bell Larner, Chairman of the Board of Trustees of the University, is awarded annually to that member of the graduating class who shall have attained the highest average grade in the entire course for the degree of Bachelor of Laws. Awarded 1919-20 to Maxwell James.

Herrick Prize.—A prize of twenty-five dollars cash, donated by Samuel Herrick, Esq., is awarded annually to that member of the graduating class, excepting the winner of the gold medal, who shall have attained the highest average grade in the entire work of the third year. Awarded 1919-20 to Thomas Claffey Lavery.

Blackstone Institute Prize.—A set of "Modern American Law," donated by the Blackstone Institute, is awarded annually to that member of the graduating class, excepting the winner of the Herrick Prize, who shall have attained the highest average grade in the entire work of the third year. Awarded 1919-20 to William Jacob Heckmann.

The Ordronaux Prize Scholarship.—A prize scholarship, known as "The Ordronaux Prize Scholarship," is awarded annually to that member of the second year class taking the regular course who shall have attained the highest average grade in the work of the second year. The recipient of this prize will be entitled to receive credit for tuition fees to the extent of one hundred dollars in his third year; the diploma fee will remain payable. The award of this scholarship is purely personal and will not be commuted to a cash payment. The recipient of the scholarship must make use of it during the session next succeeding its award; otherwise it will be awarded to the person having the next highest grade. Awarded 1919-20 to Ismar Baruch.

Phi Delta Phi Prize.—The Marshall Inn of Phi Delta Phi Legal Fraternity, which is the local chapter, offers a prize of twenty-five dollars cash, to be awarded annually to that member of the first year class taking the regular course who shall attain the highest average grade in the entire work of the year. Awarded in 1919-20 to James Morford Guiher.

Phi Delta Delta Prize.—Zeta Chapter of Phi Delta Delta Women's Legal Fraternity, which is the local chapter, offers a prize of twenty-five dollars in gold, to be awarded annually to that woman member of the first year class taking the regular course who shall attain the highest average grade in the entire work of the year. Awarded 1919-20 to Lois Gates Gorman.

Ellsworth Prize.—A prize of twenty-five dollars in gold, offered by Mr. Fitz von Briesen, called the "Ellsworth Prize," is awarded for the best work done by a student in the subject of Patent Law Practice. Awarded 1919-20 to Maxwell James.

John Byrne and Company Prize.—A prize offered by John Byrne and Company of Washington, D. C., of four volumes of their Legal Classics is awarded each year to the student attaining the highest grade in Real Property II. Awarded 1919-20 to Ismar Baruch.

FEES

The following schedule of fees applies to all students entering the Law School for the first time after September 1, 1918.

- | | |
|--|------|
| 1. Registration fee (payable once upon first registration in the Law School) | \$ 5 |
| 2. Tuition fee per annum for each hour taken per week | 12 |
| 3. Fee for graduation | 10 |
| 4. Fee for each subject taken in summer session | 12 |

No registration will be accepted for less than a half-year, and no change in the courses undertaken at the time of registration will be made unless approved by the Dean or Secretary. *Students will be charged for all courses registered or until application for permission to drop them or to withdraw from the University has been made in writing to the Dean. Withdrawals during the half-year will be granted only on recommendation of the Dean.*

PAYMENT OF FEES

Matriculation fee is due in advance. Tuition may be paid in eight monthly installments in advance, but will not be apportioned for a part of a month. Students unable to pay their fees monthly in advance will be required to file an acceptable personal or corporate bond for \$200 as security for future payment. In every instance all indebtedness must be discharged on or before May 1, of the current school year. Students who are dropped from the rolls because of delinquency in payment of fees are required to pay a reregistration fee of \$2. Fees are payable at the office of the Treasurer of the University, 2101 G Street, or of the Secretary of the Law School.

STUDENTS' EMPLOYMENT

The School endeavors to assist students in finding work to aid in their support. Many out-of-town students take the United States Civil Service examinations in their various states and secure positions in the Government departments in Washington, where the hours of employment enable them to pursue the law course in the afternoon. Information concerning these examinations may be secured from the Civil Service Commission at Washington.

There are also opportunities for private employment which will help pay expenses, but the applicant must be on hand to take advantage of them. Prospective students should have the means of support for at least a half year to give them time to secure positions.

STUDENTS IN THE UNIVERSITY

Names of students who have withdrawn or graduated are indicated by stars (*) or symbols (§); those who have entered since February 15, 1921, by daggers (†).

DEGREES CONFERRED, MISCELLANEA

STUDENTS REGISTERED IN THE DEPARTMENT OF ARTS AND SCIENCES, 1920-21

Names of students who have withdrawn or graduated are indicated by stars (*) or symbols (§); those who have entered since February, 1921, by daggers (†).

In the enumeration of undergraduate students the column of figures indicates the number of semester-hours of work taken by the student prior to the beginning of the current academic year, 1920-21, and completed without conditions, or credited on advanced standing in candidacy for a degree. In Columbian College 120 credits are required for graduation; in Teachers College, 124; in the College of Engineering, 140.

SCHOOL OF GRADUATE STUDIES IN ATTENDANCE

BROWN, LEE HENRI (D. C.)	Southbrook Courts
L. L. B., 1915, George Washington University	
COLEMAN, GRACE DECKER (S. C.)	Kendall Green
A. B., 1916, Greenville Woman's College; B. Ed., 1917, Gallaudet College	
*COVINGTON, LOUISE ISABELLE (Mo.)	208 Maryland Avenue, N. E.
A. B., 1920, George Washington University	
CURRY, JESSE MAE (Ohio)	2011 F Street
A. B., 1917, Mt. Union College	
†DENT, MARY CATHERINE (D. C.)	3000 P Street
A. B., 1919, George Washington University	
†DEERY, ARTHUR TYLER (Mass.)	3805 Yuma Street
B. S., 1910, Harvard University	
FOGLE, OSCAR MATTHIAS (Md.)	Brunswick, Md.
A. B., 1902, Roanoke College	
*FREEMAN, JOHN R., JR. (R. I.)	3785 Kanawha Street
B. S., 1916, Massachusetts Institute of Technology	
FRYERMAN, OLIVER MYLES (Tenn.)	2225 Pennsylvania Avenue
A. B., 1916, University of Tennessee	
*GESCHICKTER, CHARLES (D. C.)	1222 Connecticut Avenue
A. B., 1920, George Washington University	
*GIBBS, KATE (Mass.)	3215 12th Street, N. E.
A. B., 1919, George Washington University	
†GOODFREY, ROSALIE (Kans.)	1823 I Street
B. S. in H. E., 1918, Kansas Agricultural College	
GUSTIN, ROBERT DANIEL (D. C.)	604 4th Street, N. E.
HAMILTON, BONIFANT (D. C.)	3125 24th Street, N. E.
B. S., 1918; M. S., 1920, George Washington University	
HANFORD, FLORENCE LILLIAN (Conn.)	E-P Building, Gov't Hotels
A. B., 1915, Smith College; M. A., 1920, George Washington University	
HAWKER, FRED (D. C.)	2541 12th Street
*HOUGHTON, GRACE ADAMS (Wis.)	1770 Kilbourne Place
A. B., 1906, University of Wisconsin	
†HYSLOP, CLARENCE MONROE (Neb.)	1801 G Street
A. B., 1917, Nebraska State Normal College	
KILMARTIN, ROBERT C., JR. (D. C.)	1480 Newton Street
L. L. B., 1920, George Washington University	
KONNO, TORABRO (Japan)	2218 15th Street
A. B., 1900, University of California; A. M., 1902, Columbia University	
KEMP, MAUDE (Mo.)	1812 N Street
A. B., 1918, Drury College	
MCDOWELL, MARTHA CLAIRE (Md.)	1737 T Street
A. B., Goucher College, 1917	
†MCNAUGHTON, EDNA BELLE (Mich.)	College Park, Md.
B. S., Michigan Agricultural College	
†MCNEILL, CORNELIA ADRIE (N. Y.)	2800 13th Street
B. S., 1920, Cornell University	
*MURPHY, ANNA LOUISE (Md.)	5346 41st Street, Chevy Chase
A. B., 1918, Goucher College	
*NEWTON, WILLIAM SHIELDS (D. C.)	1938 Biltmore Street
PAN, CHIEN CHING (China)	2015 19th Street
B. S., 1918, Nanking University; A. B., 1919; M. A., 1920, Columbia University	
PROTZMAN, MERLE IRVING (Pa.)	1100 Irving Street
A. B., 1918; A. M., 1919, Dickinson College	

- *REINKE, LOUISE MARY (Ohio).....333 Garrison Avenue, Clarendon, Va.
B. S., 1900, University of Cincinnati
- *REYNOLDS, OLIVE AMRITA (Md.).....303 River Road, Bethesda, Md.
A. B., 1920, George Washington University
- SCHLAGENHEIM, BETTY (D. C.).....1422 Belmont Street
B. S., 1913; A. M., Columbia University
- SCHULTZ, ALFRED SCHULTZ (Pa.).....I. & F. Board, Dept. of Agriculture
B. S., 1918, Lehigh University
- *SCOTT, DOROTHY BERSHIRE (D. C.).....16 5th Street, S. E.
A. B., 1913, University of Omaha; M. A., 1920, George Washington University
- *SELLERS, LELLA (S. C.).....A-B Building, Gov't Hotels
A. B., 1906, Columbia College; M. A., 1911, University of South Carolina;
M. A., 1914, Columbia University
- STARKE, NATHANIEL COOPER (Va.).....Ashburn, Va.
Ph. B., 1901, University of North Carolina
- STEEVER, LAURA WINIFRED (D. C.).....2106 F Street
M. S., 1920, George Washington University
- VAN MOSS, BERT (Okla.).....The Hadleigh
LL. B., 1920, George Washington University
- WALKER, ALBERTA (D. C.).....2001 16th Street
A. B., 1914, George Washington University
- WATKINS, RHODA (D. C.).....1420 Clifton Street
A. B., 1906; A. M., 1910, George Washington University
- *WORRELL, EVERIL (D. C.).....Cherrydale, Va.
A. B., 1915, George Washington University

MASTER OF ARTS

- BAER, JOHN LEONARD (Pa.).....The Maury, Apartment 1
A. B., 1920, George Washington University. *Topics:* Major, Archaeology;
Minors, Zoology, Ethnology
- BAILEY, LILLIE PORTER (Pa.).....T-U Building, Gov't Hotels
A. B., 1920, George Washington University. *Topics:* Major, English; Minor,
Education
- BARSE, GEORGE PERCY (D. C.).....1305 B Street, S. E.
A. B., 1917, George Washington University; LL. B., 1908, LL. M., 1909, National
University Law School. *Topics:* Major, Political Science; Minors,
History, Commerce
- BARTSCH, (MRS.) SIGNE GJERDRUM (D. C.).....1453 Belmont Street
A. B., 1920, George Washington University. *Topics:* Major, Spanish; Minor,
French
- †BASHFORD, MARGARET JOSEPHIA (D. C.).....909 9th Street, S. E.
A. B., 1921, George Washington University. *Topics:* Major, English; Minors,
Education, History
- BELT, MILDEED (Md.).....1737 T Street
A. B., 1917, Goucher College. *Topics:* Major, Economics
- BENNETT, RUTH HILTON (D. C.).....3420 Mt. Pleasant Street
A. B., 1919, George Washington University. *Topics:* Major, Political Science;
Minor, History
- †DONNER, HARRIE RUSSELL (W. Va.).....237 F Street, N. E.
A. B., 1914, University of West Virginia. *Topics:* Major, Education; Minor,
Economics
- BOWEN, (MRS.) LILLIS BARLOW (N. Y.).....2419 18th Street
A. B., 1918, Syracuse University. *Topics:* Major, Sociology; Minors, Pre-
ventive Medicine, Sociology
- BROWN, MARY (D. C.).....Southbrook Courts, Apt. 608
A. B., 1915, George Washington University. *Topics:* Major, Education;
Minor, Philosophy
- BROWNE, THOMAS (D. C.).....231 9th Street, N. E.
B. Th., 1902; M. Th., 1903; S. T. D., 1910, Temple University; A. B., 1920,
George Washington University. *Topics:* Major, Philosophy
- BRUBAKER, HORACE GREELEY (Ohio).....2032 18th Street
A. B., 1918, Hillside College. *Topics:* Major, Commerce; Minors, Economics,
Political Science
- BUTTS, (MRS.) FRANCES MOON (Va.).....Business High School
A. B., 1913, George Washington University. *Topics:* Major, Education;
Minors, Education, Commerce
- CALLAHAN DOLLY MARTHERA (Va.).....209 Duke Street, Alexandria, Va.
A. B., 1919, George Washington University. *Topics:* Major, History; Minor,
Political Science
- †CASEY, ALFRED R. (Del.).....House Office Building, 15th
A. B., 1915, Delaware College. *Topics:* Major, Commerce

- CARR, ELMA B. (Ky.).....Bureau of Labor Statistics
A. B., 1920, George Washington University. *Topics:* Major, Economics;
Minors, Commerce, Political Science
- CHANEY, (MRS.) BERTHA SHANKS (D. C.)...W. M. Coll., Takoma Park
B. S., 1906, Union College, Lincoln, Nebr. *Topics:* Major, Education; Minors,
Education, Philosophy
- *CHEN, CHUN (China).....Chinese Legation
A. B., 1915, Center University, Tokio. *Topics:* Major, Economics; Minor,
Political Science
- *CONNER, LULO ELIZABETH (D. C.).....Anacostia, D. C.
A. B., 1908, George Washington University. *Topics:* Major, English; Minor,
French
- COUGHLIN, MILDRED MARGARET (Kbns.).....5346 41st Street, Chevy Chase
A. B., 1915, Washburn College. *Topics:* Major, English; Minors, Commerce,
Sociology
- DANIEL, ROBERT CLINTON (Va.).....623, Y. M. C. A.
A. B., 1908, Virginia Christian College. *Topics:* Major, Economics; Minors,
Commerce, Political Science
- DAVIS, MINNIE CARTER (D. C.).....1236 B Street, N. E.
A. B., 1913, George Washington University. *Topics:* Major, English; Minors,
Latin, History
- DENBY, JAMES ORR (D. C.).....2032 O Street
A. B., 1920, Princeton University. *Topics:* Major, German; Minors, German,
English
- DOLLARHIDE, DANIEL AUGUSTUS (Ark.).....1736 G Street
A. B., 1916, Henderson-Brown College. *Topics:* Major, Commerce; Minors,
Commerce, Political Science
- DRAPER, HENRY WHITE (D. C.).....1453 Fairmont Street
A. B., 1909, George Washington University. *Topics:* Major, Education;
Minor, English
- ELDRIDGE, HARRIET DAYTON (D. C.).....2017 Park Road
A. B., 1917, George Washington University. *Topics:* Major, English; Minors,
History, Spanish
- ENGLISH, MAUDE FRANZONI (D. C.).....2014 15th Street
A. B., 1918, George Washington University. *Topics:* Major, English; Minors,
English, Philosophy
- ERLANDSON, RAY SANFORD (Wis.).....1804 Euclid Street
A. B., 1918, University of Wisconsin. *Topics:* Major, Education; Minor,
Economics
- FERGUSON, ELIZABETH GRIEVE (Ga.).....1809 17th Street
A. B., 1919, Randolph-Macon. *Topics:* Major, English; Minor, History
- *FOWLER, GLADYS (Mo.).....1237 Girard Street
B. S., 1914, Kirksville State Normal. *Topics:* Major, History; Minors, Politi-
cal Science, Commerce
- FULTON, EDWARD IRVING (Ky.).....1445 Girard Street
A. B., 1918, Centre College of Kentucky. *Topics:* Major, English; Minors,
English, History
- GARDIS MARGARET TRIMBLE (D. C.).....1817 East Capitol Street
A. B., 1920, George Washington University. *Topics:* Major, Education;
Minors, Sociology, History
- GALESKI, ALEXANDRA L. (D. C.).....The Ontario, Apartment 610
A. B., 1918, George Washington University. *Topics:* Major, English; Minors,
Education, Art
- GLASER, FREDA ELIZABETH (Wis.).....1808 Fairmont Street
A. B., 1917, Lawrence College. *Topics:* Major, English; Minors, Sociology,
Art
- *GOFORTH, ALYS MILLRAP (La.).....1846 Oak Street
A. B., 1921, George Washington University. *Topics:* Major, English; Minors,
German, History
- GREENE, LEMUEL EUGENE (D. C.).....1108 New Hampshire Avenue
LL. B., 1915, Georgetown University; A. B., 1920, George Washington Uni-
versity. *Topics:* Major, Political Science; Minor, History
- *HANNA, K. EULALIA (Tenn.).....The Cairo, Apartment 21
A. B., 1917, Athens College. *Topics:* Major, Commerce; Minors, History,
Economics
- HARDERT, ARLOS JACKSON (W. Va.).....1736 G Street
A. B., 1912, Washington and Lee College. *Topics:* Major, Economics; Minors,
Economics, Commerce
- *HASLUP, ALICE ELMA (D. C.).....2114 18th Street
A. B., 1912, George Washington University. *Topics:* Major, Education;
Minors, English, Spanish
- HAWKHURST, KATHARINE (D. C.).....1694 Connecticut Avenue
A. B., 1917, Smith College. *Topics:* Major, Latin; Minors, Philosophy,
Education

- HAZEN, GRACE (N. Y.).....1702 Kilbourne Place
B. S., 1919, St. Lawrence University. *Topics:* Major, Psychology; Minors, Philosophy, Sociology
- HERNDON, CHARLES ALLAN (Ky.).....119 Maryland Avenue, N. E.
A. B., 1912, Centre College. *Topics:* Major, English
- HESTER, (MRS.) LAURA PYWELL (Va.).....1205 15th Street
A. B., 1919, George Washington University. *Topics:* Major, English; Minor, Psychology
- HILL, EDITH ESTHER (Ind.).....1712 Kilbourne Place
A. B., 1916, Indiana University. *Topics:* Major, Mathematics
- *HOOG, SARA (Ga.).....L-M Building, Gov't Hotels
A. B., 1920, George Washington University. *Topics:* Major, Sociology; Minors, Economics, Psychology
- HOLLIS, FAYE PEARL (Kans.).....1304 Shepherd Street
A. B., 1916, Baker University. *Topics:* Major, Economics; Minor, Commerce
- HOLMES, EDITH FLOESKE (S. Dak.).....Box 144, B. 1, Roslyn, Va.
A. B., 1918, Dakota Wesleyan University. *Topics:* Major, Sociology
- HOWISON, MARION LOVE (Va.).....1779 Church Street
A. B., 1912, Randolph-Macon. *Topics:* Major, Commerce; Minors, History, Political Science
- Hsu, MOUR (China).....2001 19th Street
A. B., 1915, Nanyang College; LL. B., 1917, Pei-Yang University. *Topics:* Major, Political Science; Minors, History, Philosophy
- *JENKINS, WALTER BRYAN (Ohio).....1756 G Street
B. S., 1917, Ohio State University. *Topics:* Major, Economics; Minor, Commerce
- JOHNSON, GRACE DEAN (Ohio).....Bethesda, Md.
B. S., 1908, New York University. *Topics:* Major, Political Science; Minor, History
- JONES, (MRS.) MARIE MACMILLAN (Wash.)...3315 Pennsylvania Avenue
A. B., 1920, George Washington University. *Topics:* Major, History; Minors, Economics, Political Science
- KAUFFMAN, HARVEY EARL (Pa.).....1139 New Hampshire Avenue
A. B., 1920, George Washington University. *Topics:* Major, Commerce; Minors, Commerce, Political Science
- *KING, MARY LOUISE (Mich.).....608 32nd Street
A. B., 1915, University of Wisconsin. *Topics:* Major, History; Minors, Commerce, Economics
- *KNIGHT, ROBERT ERNEST, JR. (Va.).....207 Prince Street, Alexandria, Va.
B. S., 1920, University of Virginia. *Topics:* Major, English; Minors, History, Political Science
- KOORIE, ALEXANDER A. (N. J.).....1142 7th Street
A. B., 1916, Franklin and Marshall College. *Topics:* Major, History
- KUPJIAN, GABRIEL (N. Y.).....Takoma Park, D. C.
A. B., 1920, Washington Missionary College. *Topics:* Major, Psychology; Minors, Philosophy, Education
- LASHLEE, MARY NORMA (Tenn.).....323 Whittier Street
B. S., 1917, Cumberland University. *Topics:* Major, English
- LEE, MARY ELIZABETH (Ark.).....C-D Building, Gov't Hotels
A. B., 1901, Ouachita College. *Topics:* Major, English; Minor, History
- *LENSKI, GERHARD EMMANUEL (Ohio).....1511 Columbia Street
A. B., 1910, Capital University, Columbus, Ohio. *Topics:* Major, Philosophy; Minors, History, Education
- LYOYD, LEONILA (D. C.).....54 Manor House
A. B., 1918, George Washington University. *Topics:* Major, Economics; Minors, History, Political Science
- McCONKIE, MARY LUCILE (Iowa).....1515 Massachusetts Avenue
B. S., 1916, Coe College. *Topics:* Major, English; Minor, Philosophy
- *McKENZIE, DORIS (D. C.).....1224 18th Street
A. B., 1920, George Washington University. *Topics:* Major, English; Minors, English, French
- (Mc)PEAK, OWEN (Tenn.).....Y. M. C. A.
A. E., 1920, University of Tennessee. *Topics:* Major, History; Minor, English
- MENG, HSIEN-CHENG (China).....2512 19th Street
A. B., 1916, St. John's University (China). *Topics:* Major, Education; Minors, Philosophy, Education
- MINER, HELEN (Ohio).....The Kewshaw
A. B., 1920, George Washington University. *Topics:* Major, Economics
- MONEYWAY, JAMES LEWIS LOFTON (Ala.).....2212 19th Street
A. B., 1912, George Washington University. *Topics:* Major, English; Minors, French, History

- *MUNTER, GODFREY LEON (Ill.).....883 Southern Building
 LL. B., 1918, National University; A. B., 1920, George Washington University. *Topics:* Major, Commerce; Minors, Economics, History.
- MURRAY, JESSICA FLORENCE (Mo.).....516 E. Clifton Terrace
 A. B., 1907, Goucher College. *Topics:* Major, English; Minor, English
- NELSON, NORMAN JUSTIN (N. Dak.).....16 Hamilton Street, Brentwood, Md.
 A. B., 1917, George Washington University. *Topics:* Major, English; Minors, English, Spanish
- NEVISE, RUBY (D. C.).....1421 Columbia Road
 A. B., 1917, George Washington University. *Topics:* Major, English; Minors, English, Architecture
- NORRIS, FREDERICK ALOYSIUS (Mass.).....50 Bryant Street
 B. S., 1919, Harvard University. *Topics:* Major, Chemistry; Minors, Preventive Medicine, Economics
- *NOTTER, VIRBROOK (D. C.).....624 Carroll Avenue, Takoma Park
 A. B., 1920, Washington Missionary College. *Topics:* Major, History; Minors, Philosophy, Political Science
- OPUTT, VIOLA (Md.).....Bethesda, Md.
 A. B., 1920, George Washington University. *Topics:* Major, English
- *PHILIPS, HAROLD AUGUSTUS (Mass.).....St. Albans School
 A. B., 1920, Brown University. *Topics:* Major, Sociology; Minors, Education, Political Science
- FRANKERT, ALMA HENRIETTA (D. C.).....1511 L Street
 A. B., 1918, George Washington University. *Topics:* Major, English; Minor, History
- RENN, GERTRUDE GEORGIA (S. C.).....1467 Irving Street, Apartment 29
 A. B., 1907, Drexel Woman's College. *Topics:* Major, Mathematics; Minors, Education, Economics
- REYNE, FELICIA ANN (D. C.).....1626 10th Street
 A. B., 1917, George Washington University. *Topics:* Major, French; Minors, French, Spanish
- *REH, EMMA (D. C.).....1210 Delafield Place
 A. B., 1917, George Washington University. *Topics:* Major, Political Science
- REITHEL, ALBERT EMMET (N. C.).....1411 L Street
 LL. B., LL. M., National University Law School; A. B., 1920, George Washington University. *Topics:* Major, Political Science; Minors, Commerce, History
- REYNOLDS, FRANCIS CORE (D. C.).....1828 20th Street
 A. B., 1918, George Washington University. *Topics:* Major, History; Minors, History, Sociology
- RING, GRETCHEN (D. C.).....1215 Harvard Street
 A. B., 1920, George Washington University. *Topics:* Major, Sociology; Minors, Sociology, Education
- *RIETER, CARL COKE (Texas).....1602 Brentwood Road, N. E.
 A. B., 1915, Simmons College. *Topics:* Major, History; Minors, Economics, Commerce. (Degree of A. M. conferred October 28, 1920.)
- ROSS, CECIL LYLEL (D. C.).....83 Carroll Avenue, Takoma Park
 A. B., 1918, Washington Missionary College. *Topics:* Major, Education; Minors, History, Psychology
- RUE, HAROLD PERCY (Pa.).....2020 Dent Place
 A. B., 1920, George Washington University. *Topics:* Major, Chemistry; Minors, Chemistry, Geology
- SCHAUWEKER, MILDRED MIRIAM (Ohio).....714 18th Street
 B. S., 1918, Ohio State University; A. B., 1920, George Washington University. *Topics:* Major, English; Minors, English, Education
- *SCHUBERTH, OTTO HENRY (Md.).....Takoma Park, Md.
 A. B., 1920, Washington Missionary College. *Topics:* Major, German; Minor, French
- SHELLEY, FREDERICK HENRY (Mo.).....Hyattsville, Md.
 B. S. in Agriculture, 1917, University of Missouri. *Topics:* Major, Economics; Minor, Commerce
- SHEPARD, FIOLA LAKE (Ohio).....426 Manor Place, Park View
 A. B., 1919, Ohio University. *Topics:* Major, French; Minors, Spanish, English
- *SIMPSON, MARY KIRK (D. C.).....3404 Prospect Avenue
 A. B., 1908, Grove City College (Pa.). *Topics:* Major, Ethnology; Minors, Ethnology, Romance Languages. (Degree of A. M. conferred October 28, 1920.)
- SLIGH, JOHN HENRY (D. C.).....1709 Q Street
 A. B., 1910, Newberry College. *Topics:* Major, Commerce; Minors, Commerce, Economics
- SMITH, EDNA S. (Mich.).....311 C Street
 A. B., 1920, George Washington University. *Topics:* Major, Psychology; Minors, English, Sociology

- SMITH, KATHERINE AMANDA (Fla.).....E-F Building, Gov't Hotels
B. S., 1916, Florida State College for Women. *Topics:* Major, English;
Minors, English, Philosophy
- SMITH, MAURICK MERLE (Okla.).....2511 14th Street
A. B., 1920, George Washington University. *Topics:* Major, Psychology;
Minors, Psychology, Physiology
- STEECE, HENRY MORTIMER (S. C.).....1786 G Street, Room 681
B. S., 1919, Louisiana State University. *Topics:* Major, Commerce; Minor,
English
- SEE, CHAO-KUEI (China).....Chinese Legation
A. B., 1912, L.L. B., 1917, Pei Yang University. *Topics:* Major, Political
Science; Minors, History, Philosophy
- THOMAS, LIBLE (Mich.).....1416 R Street, Apartment 45
A. B., 1917, George Washington University. *Topics:* Major, Commerce;
Minor, Law
- WEBER, ELIZABETH ANNA (N. C.).....1511 Park Road
A. B., 1915, George Washington University. *Topics:* Major, Political
Science; Minors, Political Science, History
- WEISS, HAROLD JOHN (Pa.).....1727 F Street
A. B., 1917, Ursinus College. *Topics:* Minor, Economics
- *WELTY, RAYMOND LEO (Kans.).....1008 22nd Street
B. S., in Education, 1918, Kansas Fort Hays Normal School. *Topics:* Major,
History; Minors, Political Science, Commerce. (Degree of A. M. conferred
October 28, 1920.)
- WHEATLEY, MARY ELIZA (Va.).....2138 F Street
A. B., 1920, George Washington University. *Topics:* Major, Political Sci-
ence; Minors, Education, Psychology
- WHITFORD, BESSIE (D. C.).....3269 18th Street
A. B., 1917, George Washington University. *Topics:* Major, English; Minors,
English, Philosophy
- WILLIS, (Mrs.) LOUISE EMMA PERCE (D. C.).....220 Pennsylvania Avenue, S. E.
A. B., 1917, George Washington University. *Topics:* Major, Philosophy;
Minors, Education, Mathematics
- WILSON, HOWELL D. (Ark.).....2028 F Street
A. B., 1919, Henderson-Brown College. *Topics:* Major, Commerce; Minors,
Sociology, Economics
- YRATON, ERNEST E. (Maine).....909 18th Street
Ph. B., 1914, Brown University. *Topics:* Major, Political Science; Minors,
Commerce, Economics

MASTER OF SCIENCE

- BURRITT, LOREN (D. C.).....1855 Calvert Street
B. S., 1915, Maryland State College. *Topics:* Major, Chemistry, Minors,
Bacteriology, Chemistry
- BURTON, OLIVER EUGENE (W. Va.).....55 T Street, N. E.
A. B., 1920, George Washington University. *Topics:* Major, Chemistry;
Minors, Chemistry, Mathematics
- BUTKIEWICZ, JOHN KONSTANTIN (D. C.).....1335 H Street
D. D. S., 1916; A. B., 1920, George Washington University. *Topics:* Major,
Histology; Minor, Bacteriology
- CAJIGAS TOMAS (D. C.).....1436 R Street
M. D., 1918; B. S., 1919, George Washington University. *Topics:* Major,
Bacteriology; Minors, Clinical Microscopy, Pathology
- CATHCART, PAUL HAMILTON (Va.).....1739 H Street
A. B., 1920, George Washington University. *Topics:* Major, Geology
- COCHRAN, DORIS MARLE (D. C.).....2027 1st Street
A. B., 1920, George Washington University. *Topics:* Major, Zoology; Minors,
Zoology, Ethnology
- CULLEN, ELIZABETH ORLAN (D. C.).....207 B Street, N. E.
A. B., 1918, George Washington University. *Topics:* Major, Geology; Minors,
Geology, Political Science
- DAVIS, (Mrs.) HELEN AUGUSTA MILES (D. C.).....1415 Rhode Island Avenue
B. S., in Chemistry, 1918, George Washington University. *Topics:* Major,
Chemistry; Minors, Chemistry, Geology
- ECKMAN, JAMES ROY (Pa.).....325 Maryland Avenue, N. E.
A. B., 1919, University of West Virginia; A. M., 1917, Harvard University.
Topics: Major, Chemistry; Minors, Chemistry, Mechanical Engineering
- *EPSTEIN, SAMUEL (N. Y.).....Bureau of Standards
B. S., 1918, College of City of New York. *Topics:* Major, Physics; Minor,
Mathematics
- ERNEST, ALGERNON SIDNEY (La.).....Route 2, Box 79 H, Alexandria, Va.
B. S., 1897, Tulane University. *Topics:* Major, Chemistry

- FLURY, HENRY (N. J.).....1917 G Street
B. S., 1912, University of Pennsylvania. *Topics*: Major, Sociology; Minors, Psychology, Ethnology
- FOSTER, MARGARET DOROTHY (D. C.).....2112 F Street, Apartment 203
A. B., 1918, Illinois College. *Topics*: Major, Chemistry
- GRIST, ROBERT LOUIS (Conn.).....1843 Calvert Street
C. E., 1917, Rensselaer Polytechnic Institute. *Topics*: Major, Chemistry; Minor, Electricity
- GILMORE, BERNARD HAROLD (D. C.).....415 G Street
A. B., 1919, University of West Virginia. *Topics*: Major, Chemistry; Minors, Physics, Geology
- GILTNER, LEIGH T. (N. Y.).....1512 Newton Street, N. E.
D. V. M., 1906, Cornell University. *Topics*: Major, Bacteriology; Minors, Bacteriology, Pathology
- HOFFMAN, JAMES IRVIN (Pa.).....Bureau of Standards
A. B., 1918, Franklin and Marshall College. *Topics*: Major, Chemistry; Minors, Chemistry, Mathematics
- HOLMES, GRACE BRUCE (D. C.).....721 Shepherd Street
B. S., 1910, University of Maryland. *Topics*: Minor, Geology
- HROMATKO, JANE SALOME (Iowa).....1635 19th Street
A. B., 1918, Coe College. *Topics*: Major, Chemistry; Minors, Mathematics, Physics
- JOHNSON, OTTO THEOPHILUS (Vt.).....1225 Harvard Street
B. S. in E. E., 1914, University of Vermont. *Topics*: Major, Physics; Minors, Electrical Engineering, Philosophy
- KERNOHAN, GEORGE (Va.).....Biochemic Div., B. A. L. Dept. of Agriculture
D. V. M., 1912, Kansas State Agricultural College. *Topics*: Major, Bacteriology; Minors, Preventive Medicine, Chemistry
- *MANNING, J. RUEL (Md.).....1222 Massachusetts Avenue
A. B., 1918, Western Maryland College. *Topics*: Major, Chemistry; Minors, Chemistry, Education
- MARTIN, JAMES BLAINE (Kans.).....1337 L Street
A. B., 1915, Fairmount College, Wichita, Kansas. *Topics*: Major, Chemistry; Minors, Physics, Bacteriology
- MOULTON, GEORGE FRANKLIN (Ill.).....1483 Newton Street, Apartment 6
A. B., October 29, 1920, George Washington University. *Topics*: Major, Chemistry; Minors, Mechanical Engineering, Applied Mathematics
- MOULTON, STANLEY CHENEY (Va.).....1820 G Street
B. S., 1918, University of Virginia. *Topics*: Major, Chemistry; Minors, Chemistry, Mathematics
- SCHAFER, JACOB MORDECAI (D. C.).....7 Oak Place, Bethesda, Md.
B. S., 1918, George Washington University. *Topics*: Major, Biochemistry; Minors, Bacteriology, Preventive Medicine
- SEMPLE, ARTHUR TRUMAN (Ill.).....1755 Lamont Street
B. S., 1916, University of Illinois. *Topics*: Major, Economics; Minor, Chemistry
- *SERUM, MARK MILTON (Minn.).....1779 Church Street
B. S. in Agriculture, 1917, University of Minnesota. *Topics*: Major, Chemistry; Minors, Chemistry, Economics
- SMITH, BENJAMIN HARRISON (Ind.).....1819 G Street, Apartment 608
A. B., 1917, Wabash College, Indiana. *Topics*: Major, Commerce; Minors, Economics, Botany
- SNYDER, CLARENCE LANE (Okla.).....3525 Colorado Avenue
B. S., 1914, Colorado State University. *Topics*: Major, Chemistry; Minor, Chemistry
- TAYLOR, JAMES NORMAN (Del.).....2031 F Street
B. S. in Chemistry, 1913, George Washington University. *Topics*: Major, Chemistry; Minors, Preventive Medicine, Geology
- THOMSON, GORDON ELMIRA (N. C.).....U. S. Hygienic Laboratory
A. B., 1918, North Carolina College for Women. *Topics*: Major, Zoology; Minors, Zoology, Bacteriology
- TILTON, LEROY WILLIAM (Texas).....917 Longfellow Street
A. B., 1920, George Washington University. *Topics*: Major, Chemistry; Minors, Physics, Mathematics
- VANICK, JAMES SEBOLD (Ohio).....2034 F Street
B. S., 1917, Case School of Applied Science. *Topics*: Major, Geology
- WEINSTEIN, MEYER (D. C.).....2328 M Street
B. S., 1920, George Washington University. *Topics*: Major, Chemistry; Minors, Chemistry, Mathematics
- *WHITSON, ALICE IVA (N. C.).....8 Lenox Street, Chevy Chase, Md.
B. S., 1912, North Carolina State College for Women. *Topics*: Major, Bacteriology; Minors, Chemistry

WILLIS, WARREN JENNISON (Minn.).....Hydrographic Office
Grad., 1912, U. S. Naval Academy; A. B., 1916; A. M., 1919, George Wash-
ington University. *Topics:* Major, Mathematics; Minors, Electrical En-
gineering, Philosophy

CIVIL ENGINEER

ASMUS, LEWIS DURAND (N. J.).....319 11th Street, N. E.
B. S. in C. E., 1918, Drexel Institute. *Topics:* Major, Civil Engineering;
Minors, Geology, Mechanical Engineering

MECHANICAL ENGINEER

HEALD, ROY HAINES (D. C.).....5623 Colorado Avenue
B. S. in M. E., 1919, George Washington University. *Topics:* Major, Me-
chanical Engineering; Minors, Commerce, Economics
WETHERILL, FREDERIC YEAZET (Oregon).....1322 Biltmore Street
B. S. in M. E., 1919, George Washington University. *Topics:* Major, Me-
chanical Engineering; Minors, Electrical Engineering, Economics

DOCTOR OF PHILOSOPHY

*ADAMS, JOHN WENFIELD (Md.).....212 Reister, Md.
B. S., 1911; A. M., 1918, Northwestern University. *Topics:* Major, Commerce;
Minors, Economics
*ADKINS, HARTWELL STANBURY (Md.).....642 G Street, N. E.
A. B., 1908, Washington and Lee University; A. M., 1910, George Washing-
ton University. *Topics:* Major, Political Science; Minors, Economics, His-
tory
ANDERSON, MYRON SALLER (D. C.).....1440 W Street
A. B., 1912, Simpson College; M. S., 1915, Iowa State College. *Topics:*
Major, Chemistry; Minors, Mineralogy, Chemistry
BALL, CHARLES ORIN (D. C.).....1739 H Street
A. B., 1919, George Washington University. *Topics:* Major, Chemistry;
Minors, Applied Mathematics, Electrical Engineering
BAYLY, MARGARET (D. C.).....1656 Monroe Street
A. B., 1914; A. M., 1916, George Washington University. *Topics:* Major,
English; Minors, English, History of Art
BOONE, PEARL VIRGINIA LEE (D. C.).....U. S. National Museum
A. B., 1919; M. S., 1920, George Washington University. *Topics:* Major,
Zoology; Minors, Paleontology, Mineralogy
BUCHANAN, RUTH (Pa.).....1922 J Street
B. S., 1919, University of Pittsburgh; M. S., 1920, George Washington Uni-
versity. *Topics:* Major, Chemistry; Minors, Bacteriology, Preventive
Medicine
CAYNINE, LOUIS LEVINE (Md.).....543 Carroll Avenue, Takoma Pk., Md.
A. B., 1906, University of Michigan; A. M., 1912, University of Nebraska.
Topics: Major, Semitics; Minor, Education
CHAPIN, EDWARD ALBERT (Mass.).....1228 B Street, S. W.
Ph. B., 1916, Yale University; M. S., 1917, Massachusetts Agricultural Col-
lege. *Topics:* Major, Zoology; Minors, Ornithology, Geology
*COLTON, WILLIAMSBY FRANCIS (D. C.).....919 15th Street
A. B., 1908, Centre College; A. B., 1907, Yale University. *Topics:* Major,
Spanish; Minors, French, English
DOYLE, AIDA MARY (Pa.).....1365 Oak Street
B. S., 1909; M. S., 1909, Columbian University. *Topics:* Major, Chemistry;
Minors, Physics, Biochemistry
DYAR, EDNA GERRISH (Minn.).....X-Y Building, Government Hotel
A. B., 1914, University of Wisconsin. *Topics:* Major, Pathology; Minors,
Pathology, Psychology
ELLISON, EVERETT MONROE (Tenn.).....1720 M Street
A. B., 1901; A. M., 1903, Grant University; M. D., 1912, George Washington
University. *Topics:* Major, Pharmacology; Minors, Pharmacology, Psychiatry
[ENLOW, (Mrs.)] ELLA MORGAN AUSTIN (W. Va.).....1457 Newton Street
A. B., 1915; M. S., 1916, George Washington University. *Topics:* Major, Bac-
teriology; Minors, Pathology, Chemistry
GARRY, CARL D. (Idaho).....182 Seaton Place, N. E.
S. B. in Chemical Engineering, 1914, University of Idaho. *Topics:* Major,
Chemistry; Minors, Geology, Physics
GRANDORT, WILBUR AUGUST (D. C.).....1483 North Capitol Street
B. S. in Chemistry, 1918; M. S., 1920, George Washington University. *Topics:*
Major, Geology; Minors, Paleontology, Zoology
GIBLEY, JAMES WILLIAMS (D. C.).....1259 Meridian Place
B. S., 1909; M. S., 1901, Princeton University. *Topics:* Major, Geology;
Minors, Geology, Zoology

- GREENLEAF, WALTER JAMES (Maine).....1012 17th Street
A. B., 1912, Bowdoin; A. M., 1918, Princeton University. *Topics:* Major, Psychology; Minors, Psychology, Physiology
- HAYES, MURRAY OSWALD (D. C.).....719 A Street, N. E.
A. B., 1914, Brigham Young University; M. S., 1920, George Washington University. *Topics:* Major, Geology; Minors, Geology, Zoology
- HENRY JERRY MAURICE (Va.).....327 North Carolina Avenue
A. B., 1909, Bridgewater College; A. M., 1919, George Washington University. *Topics:* Major, History; Minors, History, Education
- HODCKINS, GEORGE WILSON (D. C.).....1820 T Street
A. B., 1915; A. M., 1916, George Washington University. *Topics:* Major, Education; Minors, Economics, History
- KAYSER, ELMER LOUIS (D. C.).....2120 O Street
A. B., 1917; A. M., 1918, George Washington University. *Topics:* Major, History; Minors, History, Political Science
- L'ENNON, MARQUIS LAFAYETTE (Tenn.).....Cherrydale, Va.
A. B., 1912, Union University; A. M., 1919, George Washington University. *Topics:* Major, Education; Minors, Political Science, Sociology
- LILJENCRANTS, CARL JOHAN EDWARD (D. C.).....727 5th Street
A. M., 1913, Loyola College; S. T. B., 1915; S. T. D., 1918, Catholic University. *Topics:* Major, Psychology; Minors, Psychology, Psychiatry
- MCARTHUR, LOUIS EUGENE (Utah).....2112 F Street
B. Ed., 1907, Brigham Young University; A. B., 1916; A. M., 1917, George Washington University. *Topics:* Major, Political Science; Minors, History, Economics
- MAHR, ERNEST FREDERICK (N. Y.).....112 B Street, S. E.
B. S., 1917, Syracuse University. *Topics:* Major, Pathology; Minors, Pathology, Psychology
- MEISINGER, CLARENCE LEROY (Nebr.).....2921 Stephenson Pl. Chevy Chase, D. C.
B. S., 1917, University of Nebraska; M. S., 1920, George Washington University. *Topics:* Major, Meteorology; Minors, Meteorology, Aero-Physics
- MELCHER, ABLES FRANCIS (Ill.).....4115 Emory Place
B. S., 1907; M. S., 1909, Fayette College. *Topics:* Major, Geology; Minors, Mineralogy, Physics
- MERZ, ALBERT RONALD (Va.).....1667 Monroe Street
B. S. in Chemistry, 1909; M. S. in Chemistry, 1911, University of Virginia. *Topics:* Major, Chemistry; Minors, Bacteriology, Applied Mathematics
- MOORE, FRANK DEANE (D. C.).....1224 Euclid Street
A. B., 1918; A. M., 1919, George Washington University. *Topics:* Major, Geology; Minors, Chemistry, Ethnology
- MUTSMAN, JOHN CHARLES (D. C.).....1701 Park Road
A. M., 1916, George Washington University. *Topics:* Major, Education; Minor, Economics
- OLSEN, FREDRICH (D. C.).....624 Rock Creek Church
A. B., 1916; A. M., 1918, University of Toronto. *Topics:* Major, Chemistry; Minors, Physical Chemistry, Physics
- PIERCE, ROY GILFORD (Nebr.).....6218 25th Street, Takoma Park, D. C.
A. B., 1907; S. B., 1907, University of Nebraska; S. M., 1909, University of Michigan. *Topics:* Major, Botany; Minors, Botany, Zoology
- RAINE, WENDELL PHILLIPS (D. C.).....1721 S Street
B. S. in Ed., 1907; A. M., 1911, University of Pennsylvania. *Topics:* Major, Commerce; Minors, Political Science, Sociology
- RIFTENBURG, HARRY BUCHHOLZ (D. C.).....1411 N Street
A. B., 1915; A. M., 1917, University of Denver. *Topics:* Major, Chemistry; Minors, Chemistry, Physics
- ROE, JOSEPH HYRAM (Va.).....2823 14th Street
A. B., 1916, Roanoke College; A. M., 1917, Princeton University. *Topics:* Major, Chemistry; Minors, Chemistry, Physiology
- SAUNDERS, ELIZABETH BENNETT (S. C.).....St. Elizabeth's Hospital
B. S., 1901, Chicago College; M. D., 1907, Medical College of South Carolina. *Topics:* Major, Psychology; Minors, Psychology, Psychiatry
- SCHMITT, WALDO LABAILLE (D. C.).....2223 18th Street
B. S., 1913, George Washington University; A. M., 1916, University of California. *Topics:* Major, Zoology; Minors, Zoology, Paleontology
- SHINN, ERWIN HENRY (Ark.).....1725 F Street
A. B., 1910, Arkansas University; B. S., 1916, Oklahoma Agricultural and Mechanical College; A. M., 1918, George Washington University. *Topics:* Major, Education; Minors, Agricultural Education, Sociology
- TICE, REBECCA E. (Pa.).....210 N.O. Building, Government Hotels
B. S., 1918, Albright College. *Topics:* Major, Pathology; Minors, Pathology, Psychology
- WOODWARD, RAYMOND WEST (Conn.).....1421 Columbia Road
B. S., 1914; M. S., 1915, Trinity College. *Topics:* Major, Chemistry; Minors, Physics, Mechanical Engineering

- WRIGHT, GRACE VIOLA (D. C.).....The Montgomery
A. B., 1919; A. M., 1920, George Washington University. Topics: Major,
Psychology; Minors, Psychology, Philosophy
YEN, EN TRUNG (China).....2015 19th Street
A. B., 1918, Shanghai Baptist College; A. M., 1920, George Washington Uni-
versity. Topics: Major, Political Science; Minors, History, Philosophy

COLUMBIAN COLLEGE

A. B.

- Abel, Mary E. (IV, 9)
†Abramson, Herbert (II, 6)
Aein, Morris M. (VI, 0)
†Ahern, Mary E. (VI, 0)
†Aiken, Carolyn B. (II, 66)
Aiken, Sam B. (II, 80)
Alexander, Mabel C. (III, 44)
Alexander, Maxie M. (I, 89)
Alexander, Susan (IV, 6)
Alford, Charles C. (IV, 6)
Allen, Alice Allene (II, 0)
Allen, Raymond Edward (IV, —)
*Allen, Walter R. (II, 31)
*Allred, Imble (IV, 9)
Alseen, Myrtle F. C. (IV, 69)
Aman, Dorothy Nesbit (IV, 6)
Anderson, Charlotte C. (II, 6)
Anderson, Edith A. (IV, 40)
Anderson, Marjorie (II, —)
Anderson, Nell T. (II, 30)
Anderson, Robert N. (IV, 91)
Andrew, Alice (II, 11)
Arms, Richard P. (IV, —)
Arnold, Rosemary (II, 79)
Arnot, Ethel C. (II, —)
Arrowsmith, Jean M. (II, 11)
Ashford, Alice M. (II, 33)
Aten, Ralph P. (IV, 34)
Austin, Violet K. (II, 12)
Ayres, Kathryn (II, 62)
Ayres, Margaret (II, 92)

Bacheller, Alice (II, —)
Bailey, Marion V. (IV, 9)
Baker, Perry R. (IV, 9)
Baker, Ruth A. (IV, 0)
Baldwin, Alice (II, 27)
Ballah, Clea (II, —)
Ballenger, John F. (IV, 24)

Ballinger, William M. (V, 112)
†Bangarter, Sarah C. (II, —)
Barber, Ernest (IV, 9)
Barksdale, Alice A. (II, 12)
Barlow, R. Geraldine (II, 39)
Barnes, Edith (II, 6)
†Barrett, Euritha C. (II, —)
Barrett, Zora (II, —)
Barrow, Mary G. (II, 18)
Bartholomew, Wilmer T. (III, 0)
†Barton, James F. (IV, 0)
Bauser, William S. (II, 0)
Bauer, Emma B. (IV, 10)
†Bayne, Hazel M. (II, 0)
Beach, Jessie G. (II, 38)
Becker, Ferdinand E. (II, 6)
Becker, Wade M. (II, 34)
Beckett, Edgar W. (I, 64)
Beeks, Lucile (II, 0)
†Behne, Thomas D. (IV, 117)
Behrend, Henrietta (II, 88)
Bender, Leo (IV, 10)

Ill.
D. C.
D. C.
Mass.
Tenn.
Tenn.
Wash.
N. C.
Ill.
Texas
W. Va.
Ohio
N. Y.
D. C.
Minn.
Md.
Pa.
Ill.
Kana.
D. C.
Va.
Ohio
Mass.
D. C.
Texas
Pa.
N. Y.
D. C.
Md.
D. C.
D. C.

1223 Vermont Avenue
601 Fern Place, N. W.
201 C Street, S. W.
Government Hotels.
1824 California Street
1834 California Street
2106 F Street
The Rochambeau
Government Hotels
The Marlborough
908 B Street, N. E.
Dumbarton Court
1101 24th Street
1317 Rhode Island Avenue
1463 Meridian Place
Hyattsville, Md.
1116 9th Street, N. W.
Care Swedish Legation
Government Hotels
1586 16th Street
80 Randolph Place
625 G Street, S. W.
Naval Hospital
24 2nd Street, N. E.
310 Machinist Building
1717 S Street, N. W.
924 C Street, N. W.
1358 Jefferson Street.
Takoma Park, Md.
The Portner
The Portner

Mass.
D. C.
Mo.
D. C.
D. C.
W. Va.
D. C.

1906 H Street, N. W.
1439 Fairmont Street
4820 Iowa Avenue, N. W.
1767 Lanier Place
1804 Kilbourne Place
1104 M Street, N. W.
903 North Carolina Avenue,
S. E.

D. C.
D. C.
D. C.
D. C.
D. C.
D. C.
D. C.
Ark.
Ark.
D. C.
D. C.
Mass.
Pa.
Pa.
N. Y.
Texas
Ind.
Pa.
D. C.
Ohio
Okla.
D. C.
Md.

1489 Newton Street
3800 Davenport Street
218 6th Street, N. E.
1317 Kenyon Street.
1424 Q Street
143 11th Street, N. E.
The Northumberland
The Northumberland
1613 1/2 I Street, N. E.
1209 Crittenden Street
1337 L Street, N. W.
143 11th Street, N. E.
Government Hotels
625 Quebec Place
U. S. National Museum
323 2nd Street, S. E.
1120 13th Street, N. W.
710 Quincy Street
911 19th Street
1736 G Street
2803 18th Street
Silver Spring, Md.

Benfer, Mary C. (II, 27)	D. C.	2009 17th Street, N. E.
Bennet, Ara L. (II, 22)	Ohio	U. S. National Museum
Bergner, Gretchen A. (II, 6)	D. C.	1422 F Street, N. E.
Berliner, Alice E. (II, 47)	D. C.	1459 Columbia Road
Berryman, James T. (II, 6)	D. C.	1754 Euclid Street
Birge, Morgan (III, 6)	D. C.	Gordon Hotel
Birmingham, Charles A. (IV, 6)	Conn.	16 Girard Street, N. E.
Birch, Jennie (II, —)	Pn.	1747 P Street
Bischoff, Anna M. (II, 6)	Va.	Cherrydale, Va.
*Bishop, Emmeline F. (II, 6)	D. C.	Congress Heights, D. C.
Bishop, Thelma (II, 6)	D. C.	601 North Carolina Avenue, S. E.
Bittner, Elva Dorothy (II, 6)	Pa.	1819 G Street
Bitta, Bessie R. (Mrs) (VI, 6)	Wyo.	1223 Spring Road, N. W.
Black, Irvine (IV, 6)	Iowa	Y. M. C. A.
Black, Owen (IV, 50)	Mo.	George Washington Inn
Blake, Nelson M. (I, 18)	Md.	Hyattsville, Md.
Blanton, John M. (II, 6)	Texas	1029 Kenyon Street
Bleiker, Ross F. (V, 67)	Mo.	1910 G Street
Blum, Jeannette F. (IV, 60)	D. C.	Congress Heights, D. C.
Boardman, Leona (III, 18)	Ohio	1220 North Carolina Avenue
Bogardus, Hester M. (II, 6)	Ohio	224 Maryland Avenue, N. E.
Bond, Samuel H. (IV, 12)	Ill.	4523 Klinge Street
Bonebrake, Helen L. (VI, 27)	D. C.	5210 Illinois Avenue
Booher, Ivan C. (VI, 6)	Ill.	1748 Q Street
Borden, Hazel A. (III, 6)	Mass.	1501 Farragut Street
Border, Mildred (II, —)	Ind.	2113 P Street
Postwick, Elmer P. (VI, 100)	Ohio	1808 G Street
Rosworth, Robert J. (V, 78)	D. C.	523 3th Street, N. E.
Roudinot, Frank J., Jr. (IV, 6)	D. C.	502 Southbrook Courts
Bowen, George L. (V, 49)	Kans.	1829 18th Street
Bowen, Hilda C. (IV, 37)	D. C.	Chevy Chase, D. C.
*Bowie, Helen M. (II, 6)	D. C.	Chevy Chase, D. C.
Bowker, Marian (II, 6)	D. C.	127 Rock Creek Church Rd.
Bowman, John Wm. (II, 6)	D. C.	The Ontario
Box, Mary M. (IV, 60 1/2)	Texas	3024 5th Street, N. W.
*Boyd, James Irving (V, 6)	N. Y.	1755 Church Street, N. W.
Boyd, Kenneth, W. (IV, —)	D. C.	1441 Chapin Street
Boyd, Vernon Jerome (IV, 9)	N. Dak.	612 1/2 22nd Street
Braden, Mozelle E. (I, —)	D. C.	4002 Kansas Avenue
Bradley, Ethlyn (II, 6)	Ill.	1720 Lamont Street
Bradley, Mary M. (II, 94)	Ga.	1720 Pennsylvania Avenue
Bradley, Vivian C. (IV, 72)	D. C.	1720 Lamont Street
Brady, Clara Louise (II, 6)	Pa.	2810 Morrison Street
Brannen, Florence (IV, 85)	Ga.	1209 17th Street
*Bray, Ralph G. (IV, —)	Okla.	Bethesda, Md.
Braserol, Catherine B. (II, 23)	D. C.	1225 11th Street
Brethorst, Lydia (II, 6)	D. C.	807 B Street, N. E.
Brett, Katherine E. (II, 6)	Mass.	19 Bryant Street
Brewer, Margaret G. (II, 23)	Md.	College Park, Md.
Bridges, Ildria (IV, 15)	Ill.	1828 South Carolina Avenue
Bright, Mildred (II, 13 1/2)	Ky.	208 Maryland Avenue, N. E.
Brodsky, Anna (IV, 6)	D. C.	2118 Park Place
*Bronson, Frances M. (II, 6)	D. C.	2706 Ontario Road
Brookley, Lora (II, —)	Ohio	2004 G Street
Brooks, Janelro V. (II, 6)	D. C.	Chevy Chase, D. C.
Brown, Cecil R. (VI, 6)	Ill.	Marine Barracks
Brown, Earl (VI, 18)	D. C.	2025 F Street
Brown, Edwin A. (VI, 6)	N. Y.	1518 K Street
Brown, Brna (II, 96)	Mo.	Cavendish Apartments
Brown, Francis Willis (IV, 6)	D. C.	214 18th Street, N. E.
Brown, Georgia M. (III, 24)	Minn.	521 15th Street, S. E.
Brown, Louis A. (IV, 6)	D. C.	4123 New Hampshire Avenue
Brown, Mary Agnes (IV, 18)	D. C.	4608 15th Street
Brown, Omar J. (IV, 6)	N. C.	1227 Irving Street
Browning, Rosemary (III, 6)	D. C.	2300 Newark Street, N. W.
Bruner, Kenneth H. (IV, 6)	Ind.	519 Harvard Street
Bryant, Charles O. (IV, 6)	Tenn.	608 22nd Street
Bryant, Katherine G. (II, 6)	D. C.	204 Rittenhouse Street
Buckingham, Ethel R. (II, 18)	D. C.	1209 Kennedy Street
Buckman, Florence M. (II, 6)	D. C.	2550 14th Street
*Buffum, Marjorie N. (III, —)	Conn.	Chevy Chase, Md.
Burress, Harriett L. (II, 22)	D. C.	1819 Hamlin Street, N. E.
Burgess, Sabra O. (IV, 6)	Ind.	2319 18th Street, N. W.

- *Burkinshaw, Thomas J. (VI, 24)
 *Burnham, Cluit K. (VI, 0)
 Burrus, John W. (V, 70)
 Bursley, Harry C. (VI, 0)
 Burton, Annette Louise (II, 0)
 *Burton, Oliver E. (III, 131)
 Bushong, L. D. (IV, 15)
 *Butkiewicz, John K. (II, 134)
 Butkiewicz, Mrs. Eugenia (II, 0)
 D. D. S., 1918, George Washington University
 Butler, Marion, Jr. (IV, 50)
 Buzbee, J. Quintin (IV, 100)
 Byars, Jos. C., Jr. (II, 0)
 Caldwell, Millard L. (III, 0)
 *Calvin, Jeannette M. (II, —)
 Campbell, Lois E. (II, 30)
 Campus, Joseph L. (I, 0)
 Cantrell, Tillman B. (IV, 71)
 *Cantrell, Robert (VI, 59)
 †Cantrell, William C. (V, 71)
 Carle, Herbert M. (IV, 49)
 Carlton, Marguerite S. (II, 0)
 *Carmean, Nell Wales (II, 0)
 *Carney, Quincy A. (IV, 0)
 *Carney, Ruth Scott (II, 0)
 *Carr, Madeline Hannah (II, 0)
 Carroll, Ellen Lee (I, 82½)
 Casanges, Alexander (IV, 0)
 Castle, Wanda R. (IV, 18)
 †Caton, Margaret B. (II, 0)
 Cavannagh, Jeannette (II, 0)
 Cerezo, A. Victor (II, 24)
 Chace, Marjorie (III, 27)
 *Chagnon, Emma M. (II, 0)
 Chaloner, Cathryn (II, 0)
 Chan, Im Hing (IV, 52)
 Chandler, Ruth S. (II, 0)
 *Chapin, Mabel H. (II, 18)
 Chappell, Lillian J. (II, 0)
 Charest, Anna M. (V, 51)
 Chastian, Louis P. (II, 0)
 Chatfield, Helen L. (III, 0)
 *Cheek, Elsie C. (III, 15)
 Chickering, Elizabeth E. (II, 27)
 Chisholm, Catherine (II, 0)
 Clark, Helen A. (II, 0)
 †Clark, Ruth M. (II, 0)
 Clark, Waldo A. (VI, 31)
 Clarke, Cornelia P. (II, 24)
 *Clarvoe, George W., Jr. (IV, 0)
 Cline, Robert C. (I, 24)
 Coakley, Walter (III, 0)
 *Cockrell, Hugh W. (IV, 0)
 †Coghill, William D. (IV, 0)
 Coleman, Charles H. (IV, 0)
 Coleman, Denver D. (V, 93)
 *Coleman, Donald G. (III, 109)
 Colflesh, Robert W. (IV, 21)
 Comfort, Helen L. (II, 0)
 Cook, Charles M. (IV, 0)
 †Cook, Hildrah H. (II, 0)
 *Cooke, Julia T. (II, 0)
 Coombs, Daniel S. (III, 104)
 *Coons, Agnes C. (II, 0)
 Cooney, Emma B. (II, —)
 Cooperman, Hattie (IV, 77¼)
 Corbin, Bartley (IV, 0)
 Corey, Hilda I. (II, 0)
 *Corn, Herbert F. (IV, 21)
 Cotter, Virginia (III, 0)
 Couture, Mildred L. (II, 50)
 *Cowgill, Paul (VI, 0)
 *Craig, Alice E. (II, 0)
- Conn
 Ohio
 N. C.
 D. C.
 D. C.
 W. Va.
 Va.
 D. C.
 D. C.
- 919 18th Street
 1842 Calvert Street
 1748 Q Street, N. W.
 57 R Street, N. E.
 420 Randolph Street
 55 T Street, N. E.
 2201 K Street
 1335 H Street, N. W.
 1335 H Street, N. W.
- D. C.
 Ala.
 Va.
 Va.
 Ind.
 Pa.
 N. Y.
 Ill.
 Ill.
 Texas
 Ohio
 D. C.
 Texas
 Ind.
 D. C.
 D. C.
 Miss.
 D. C.
 Texas
 Va.
 D. C.
 D. C.
 D. C.
 N. Y.
 Ill.
 China
 Va.
 D. C.
 Ark.
 Mich.
 Pa.
 D. C.
 D. C.
 N. H.
 Md.
 D. C.
 Wis.
 D. C.
 Md.
 D. C.
 Va.
 Ohio
 D. C.
 D. C.
 D. C.
 Ohio
 Kans.
 Iowa
 Md.
 D. C.
 Ga.
 D. C.
 Nebr.
 Mich.
 Pa.
 Iowa
 Ala.
 N. H.
 Ill.
 Md.
 N. H.
 D. C.
 D. C.
- 1522 S Street
 Y. M. C. A.
 2511 14th St.
 Clarendon, Va.
 1414 10th Street
 5611 14th Street
 608 22nd Street
 1518 K Street
 1518 K Street
 787 20th Street
 611 22nd Street
 3724 Northampton Street
 Government Hotels
 2032 I Street
 1009 Otis Place
 4423 Georgia Avenue
 811 10th Street
 201 E. Capitol Street
 2100 Massachusetts Avenue
 2401 15th Street
 4011 Marlboro Place
 110 E Street
 Chevy Chase, D. C.
 1323 Lawrence Street, N. E.
 501 Kenesaw Apartment
 806 9th Street
 517 Taylor Street
 815 A Street, S. E.
 4418 15th Street, N. W.
 2381 Tunlaw Road
 1624 G Street, S. E.
 4200 Chesapeake Street
 54 V Street
 1410 11th Street, N. W.
 Garrett Park, Md.
 1818 Kalorama Road
 704 A Street, N. E.
 1778 Lanier Place
 Hyattsville, Md.
 4106 Illinois Avenue
 McLean, Va.
 1130 17th Street, N. W.
 2292 Q Street
 3033 16th Street
 1919 H Street
 1908 H Street, N. W.
 1782 W Street, N. W.
 Y. M. C. A.
 813 11th Street, N. E.
 1110 Park Road
 411 4th Street, N. W.
 1349 Irving Street
 1113 9th Street, N. E.
 510 Eye Street
 2217 Washington Circle
 1841 Kalorama Road
 419 2nd Street, N. W.
 1828 E. Capitol Street
 1100 Vermont Avenue
 Agricultural Dept.
 1853 Calvert Street
 1757 Willard Street
 507 Quincy Street

†Crain, Helen N. (IV, 29)	D. C.	127 Tennessee Avenue, N. E.
Criswell, Howard D. (VI, 0)	D. C.	530 Shepherd Street
Crofton, George H. (III, 30)	Mass.	713 21st Street
M. D., 1914, University of Maryland		
Croggan, William N. (V, 29)	D. C.	1480 Newton Street
Crowe, Carl C. (VI, 0)	Ky.	Commercial National Bank
Cullen, Ruth W. (II, —)	Ill.	Government Hotels
Cullen, Sara L. (II, 39)	Va.	1105 O Street
Cummins, Effie R. (II, 0)	Ill.	1123 13th Street
*Cushman, Charles V. (IV, 0)	D. C.	1314 16th Street
Dahl, Anna (II, 18)	Iowa	1227 15th Street
Dahl, Myra (II, 15)	Iowa	1227 15th Street
Dake, Lucy R. (II, 18)	Va.	Cherrydale, Va.
Darby, Roy T. (IV, 24)	Iowa	523 Shepherd Street
Davis, Graham L. (IV, 45)	N. C.	Y. M. C. A.
Davis, Hazel J. (II, 0)	D. C.	2915 14th Street
†Davis, Marshall (VI, 0)	D. C.	3422 8th Street, N. W.
Davis, Marshall Dean (VI, 0)	Ga.	1333 15th Street
Davis, Ruth (II, 0)	Kans.	124 3rd Street, N. E.
†Dawes, Isabel (II, —)	Md.	Government Hotels
Day, Dorothy (II, 0)	Md.	Bethesda, Md.
Day, Helen M. (II, 12)	D. C.	2014 N. Capitol Street
Dean, Waiva A. (IV, 66½)	Oreg.	1987 Park Road
Deatherage, Alice P. (III, 2)	D. C.	1101 Euclid Street
Deaton, Linda (II, —)	Ohio	722 10th Street
de Brodes, Pauline (II, 2)	D. C.	The Portner
*Deeds, Frances T. (II, 0)	D. C.	1223 Fairmont Street
*Deffinbaugh, Mary A. (II, 28)	Md.	Silver Spring, Md.
De Grange, Frances E. (II, 18)	D. C.	25 U Street, N. E.
De Jersey, Violet (II, 0)	D. C.	1133 6th Street, N. W.
Delawder, John L. (III, 20½)	D. C.	1730 M Street, N. W.
Dement, Charles W. (IV, 0)	D. C.	1348 Parkwood Place
†Dermody, Mary L. (II, 0)	D. C.	4424 9th Street
DeVoe, Winifred (II, 0)	D. C.	1347 Otis Place
†Diaz, Benito D. (IV, —)	P. I.	1749 E Street
*Disch, Margaret (II, 0)	D. C.	Government Hotels
Dixon, Lester E. (VI, 0)	N. Y.	1618 H Street, N. W.
Dobkin, William W. (VI, 0)	D. C.	3521 New Hampshire Avenue
†Dodek, Oscar I. (IV, 0)	D. C.	1319 Emerson Street
Dodek, Samuel M. (V, 34)	D. C.	1360 Spring Road
*Donahay, Katharine (II, —)	Pa.	2609 Hamlin Street, N. E.
Don Leavy, Mary A. (II, 18)	VI.	1524 L Street
Donovan, Mrs. Katherine M. (IV, 66)	Kans.	1108 6th St., N. W.
†Donovan, Lucile (IV, 0)	Ind.	1426 M Street
Doran, Sarah L. (II, —)	N. Y.	Government Hotels
Doremus, Robert E. (IV, 0)	Mich.	2502 Wisconsin Avenue
Dortch, Jane M. (VI, 0)	D. C.	1510 Park Road
*Dougherty, Dorothy (II, 0)	N. Y.	1119 I Street
Doyle, Blanche G. (II, 28)	D. C.	The Rochambeau
Doyle, Ethel A. (II, 18)	Ill.	The Rochambeau
Drew, Alice E. (III, 12)	Fla.	1922 Belmont Road
Drew, Marietta B. (II, 9)	Fla.	1922 Belmont Road
*Driscoll, Mary C. (II, 0)	Wis.	Government Hotels
Droll, Miss Sophia R. (II, 0)	Ohio	714 19th Street
Drown, Marion J. (IV, 60)	D. C.	1027 12th Street
Drummond, Earle J. (V, 108)	Ohio	1807 H Street
DuRose, Camille (II, —)	D. C.	2903 Q Street
Duffies, Ada L. (II, —)	D. C.	2412 12th Street, N. E.
Duffy, Maurice M. (II, 111)	Wash.	1512 Lamont Street
Duggan, James H. (VI, 20)	Ga.	1300 Massachusetts Avenue
Dunagan, Carlos (IV, 40)	Ind.	1225 L Street
Dunham, Martha D. (II, 0)	D. C.	1628 Columbia Road
Dunne, Eleanor C. (II, 0)	D. C.	1801 Phelps Place
Duryea, Beatrice L. (II, 0)	N. Y.	800 21st Street
Earle, Sherod L. (IV, 0)	D. C.	1334 Irving Street
Earnshaw, Eleanore A. (II, 70)	D. C.	806 D Street, S. E.
†Earnshaw, Samuel W. (IV, 54)	D. C.	806 D Street, S. E.
Earnest, Elizabeth (II, 40)	D. C.	2123 N Street
Easterling, Esther M. (II, 0)	Pa.	2110 13th Street, N. W.
†Eaton, Bernice L. (II, —)	Ill.	1758 O Street
*Ebbert, Benjamin G. (IV, 0)	Ohio	3611 33rd Place
Eble, Francis A. (IV, 0)	Utah	Hadleigh Apartments
*Eccles, Parley P. (VI, 18)	Utah	1712 17th Street
Rekard, Illinois (II, 0)	Ill.	2568 University Place

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|-----------------------------------|---------|---------------------------------|
| Eckel, Arthur F. (III, 82) | Ill. | Bureau of Standards |
| Eckhardt, Eleanor T. (II, 0) | D. C. | 686 A Street, N. E. |
| Eckert, Esther A. (II, 17) | D. C. | 3042 Newark Street |
| *Egner, Raymond A. (IV, 0) | D. C. | 1108 13th Street |
| Ehret, Ruth G. (II, 9) | N. J. | Government Hotels |
| Eldridge, Frank R., Jr. (VI, 31) | D. C. | Takoma Park, D. C. |
| Ellerbe, Mrs. Norwood M. (II, 40) | D. C. | 1930 S Street |
| Ellerson, Edmund M. (V, 28) | D. C. | 2134 R Street |
| Elliott, Edith L. (II, 80) | D. C. | 1006 B Street, N. E. |
| Elliott, John F. (III, 88) | D. C. | 1723 21st Street |
| *Ellis, Mildred D. N. (II, 0) | D. C. | 613 4th Street, N. E. |
| *Ennen, Miriam B. (III, 15) | D. C. | 2109 F Street, N. W. |
| Erbach, Amalia M. (IV, 6) | D. C. | 713 Massachusetts Avenue, N. E. |
| Eakew, Clarence E. (VI, 30) | Ill. | 1518 K Street |
| *Esler, Dorothy R. (I, 0) | Mass. | 19 Bryant Street |
| Espy, Anna L. (II, 18) | D. C. | 2010 First Street |
| *Etchison, Ralph S. (IV, —) | Md. | Gaithersburg, Md. |
| Evans, Edwin H. (IV, 0) | D. C. | 3512 Newark Street |
| Evans, Leland M. (V, 33) | Utah | 1234 13th Street |
| Ewen, James E. (VI, 0) | Ind. | 924 New York Avenue |
| *Exley, Clarence M., Jr. (IV, 12) | D. C. | 1449 Monroe Street |
| Fair, John B. (IV, —) | Texas | 1627 Lamont Street |
| Falsey, Elizabeth I. (II, —) | N. Y. | 1628 Columbia Road |
| Faries, John S. (III, 0) | Nebr. | Y. M. C. A. |
| *Farrell, Thomas F. (II, 111) | Mass. | 1903 H Street |
| *Feraee, Harry Joseph (IV, 0) | Conn. | 14 Everts Street |
| Ferebee, Cora B. (II, 6) | N. C. | 1813 H Street |
| *Ferneyhough, Fannie A. (II, 0) | D. C. | 128 B Street, N. E. |
| Fiksdal, Richmond (IV, 0) | S. Dak. | 1236 Gallatin Street |
| Fish, Mildred E. (IV, 0) | Md. | Chevy Chase, Md. |
| Flack, Herron T. (III, 82) | Kans. | 1735 G Street |
| Flisher, Leonora V. (II, 6) | N. Y. | 1113 Euclid Street, N. W. |
| Foley, Charles F. (VI, 112) | Pa. | 1750 Massachusetts Avenue |
| Folse, Leonard Roy (IV, 21) | La. | 2015 G Street |
| Foreman, Genevieve (II, 18) | Ill. | 1254 Columbia Road |
| Foster, B. S., Jr. (IV, 20) | D. C. | 2034 F Street |
| Foster, Frances H. (II, 20) | Ohio | The Woodley |
| *Fox, Solomon C. (III, 0) | N. J. | 2007 F Street |
| *Fraser, Elizabeth S. (II, —) | Va. | 2100 Massachusetts Avenue |
| Frazier, Ethelwyn (II, 0) | Texas | Glen Echo, Md. |
| Freedman, Alexander (VI, 27) | D. C. | 9129 19th Street |
| Freeman, Elsie M. (II, —) | Ill. | 1150 N. Capitol Street |
| *Freeman, Susan E. (II, 0) | N. C. | 2118 O Street |
| French, Harry F. (III, 0) | Va. | 663 Maryland Avenue, N. E. |
| Fry, Sara G. (II, 0) | W. Va. | 1837 Girard Street |
| *Fuller, Jennie L. (II, 0) | D. C. | 2325 12th Street |
| Gallagher, Mary E. (II, 0) | D. C. | The Portner |
| Gallagher, Phyllis C. (II, 0) | D. C. | 1420 Harvard Street |
| *Gantt, Edna B. (IV, 0) | Md. | 1214 Lamont Street |
| *Ganzert, Frederic W. (II, 0) | Calif. | 1815 G Street |
| *Ganzuz, Bernardt (IV, 40) | P. I. | 1749 E Street, N. W. |
| Gardner, Allen H. (IV, 13) | Pa. | 1421 Buchanan Street |
| Gardner, Bessie R. (IV, 0) | Okla. | 2117 G Street |
| Gardner, Helen M. (IV, 61) | D. C. | 1509 21st Street |
| Garnett, Joseph F. (IV, 0) | Ky. | 1323 15th Street |
| Gassman, Janet J. (II, 42) | D. C. | 1945 Ontario Place |
| *Gates, Phoebe Chappell (II, 281) | D. C. | 1817 Lamont Street |
| Gledel, William H. (V, 24) | Calif. | 2118 G Street |
| George, Mary V. (II, 15) | D. C. | 512 E. Capitol Street |
| Gerry, Marlorie S. (II, 80) | D. C. | 2044 Macomb Street |
| Geisford, Eleanor I. (18) | D. C. | 9128 12th Street |
| *Gibormer, Margaret H. (II, 28) | D. C. | 2305 Macomb Street |
| Gibbons, Marie E. (IV, 99) | Wash. | 1801 Rhode Island Avenue |
| Gillespie, Rees A. (IV, 0) | Va. | 1513 Eye Street |
| Giltner, Oia E. (II, —) | Mo. | 1534 16th Street |
| Girdner, William W. (IV, 33) | Ind. | Takoma Park, D. C. |
| Girts, Maxine L. (IV, 0) | D. C. | 1424 Harvard Street |
| Gladstone, Newton A. (IV, 0) | Pa. | 1748 8th Street |
| Glass, John D. (IV, 30) | D. C. | 700 10th Street, N. E. |
| *Glew, Donald H. (V, 93) | Kans. | 1008 Euclid Street |
| Glover, Clarence K. (IV, 30) | D. C. | 1236 Massachusetts Avenue |
| Glover, Wilbur Barron (IV, 0) | W. Va. | 3104 18th Street |
| Goddard, Eunice F. (III, 47½) | D. C. | 112 Barnum Street |
| Godfrey, Clarence M. (III, 90½) | Maine | 915 14th Street, S. E. |

- Goehring, Richard E. (VI, 19)
 *Goforth, Alys M. (I, 119)
 Goldman, Anna (II, 6)
 Gooch, Mabel (II, 6)
 *Goodrich, Llewellyn L. (IV, 23)
 Gordon, Isidor (II, 24)
 *Gordon, William H. (IV, 6)
 Gorton, Hazel R. (II, 6)
 Granger, Elizabeth M. (II, 6)
 Grass, Edward J. (B, 18)
 Gravatt, Frances E. (III, 103)
 Graves, Ralph A. (IV, 108)
 Graves, Warren E. (VI, 41)
 Gray, Ulysses Sherman (IV, 283)
 *Greenberg, Martha (II, 6)
 *Greene, Ruth G. (III, 6)
 Greenlee, Zola V. (II, —)
 Greenup, Nell Blanche (II, 9)
 Gregg, Alexander W. (IV, 120)
 *Griffin, Lawrence D. (VI, 73)
 Grimes, Cora D. (II, 38)
 Grimm, Freda (II, —)
 Grindell, May Eleanor (II, 6)
 Grissett, Marjorie (II, —)
 Gross, Howard D. (IV, 6)
 Grock, Nellie H. (II, 18)
 *Gronna, Arthur J. (IV, 104)
 Grossman, Herbert R. (VI, 86)
 Gullford, Anne E. (IV, 74)
 Gulterman, Mrs. Dorothy S.
 (II, 111½)
 Hadden, Helen F. (III, 26½)
 Haffly, Edith (VI, 42)
 Hagan, Jonathan Foster (IV, 32)
 Haines, Mary S. (IV, 6)
 *Haldeman, Daniel L. (VI, 127)
 *Halliday, Josephine B. (II, 6)
 *Hall, Theresa (IV, 8)
 Halliday, C. Warner (IV, 6)
 *Hamilton, Ann Sparks (II, —)
 Hamilton, Anna Mary (II, 9)
 Hammack, Paul Willard (VI, 35)
 *Hammond, James D. (VI, 6)
 Hamric, Ethel M. (V, 8)
 Hancock, Louise Henry (II, 6)
 Hand, Francis M. (V, 70)
 Handy, Bertha (II, 6)
 Hanson, Edward J. (IV, 117)
 Hanson, Jennie (II, 6)
 Harbaugh, Y. D., Jr. (IV, 6)
 Harlow, W. Frank (VI, 6)
 Harris, Dorothy Weber (II, —)
 *Harrison, Lewis I. (IV, 117)
 *Harrison, Mary I. (II, 12)
 Harrown, Luella (II, —)
 Harvey, Rosamond Frances (II, 91)
 Hastings, George S. (III, 104)
 Hatcher, James C. (IV, 97)
 *Haugen, Esther E. (II, —)
 Haverstock, George M. (III, 112)
 Haworth, Ellis (III, 42)
 Hayes, Arthur B. W., Jr.
 (IV, 58½)
 Hayes, Jennie Valentine (II, —)
 Haynes, William P. (V, 8)
 Haynes, Winston R. (V, 17)
 Hays, Cathryn M. (II, 31)
 *Hays, Dallas B. (IV, 8)
 Henley, Robert B. (I, 89)
 Hedden, Eva N. (II, 6)
 Hedden, Ruth Marie (II, 65)
 *Hegner, Ethel E. (II, —)
 *Heller, Matthew J. (VI, 6)
 *Hellmuth, Everett A. (III, 113)
 Pa.
 La.
 D. C.
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 Ind.
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 1325 15th Street
 1346 Oak Street
 1103 Fifth Street
 1310 N Street, N. W.
 201 I Street
 Riverdale, Md.
 21 1st Street, N. E.
 1444 N Street, N. W.
 2719 New Hampshire Avenue
 2024 I Street
 Chevy Chase, Md.
 1815 16th Street
 1748 Q Street
 2015 G Street
 4506 14th Street
 226 13th Street, S. W.
 1515 Massachusetts Avenue
 2011 F Street
 1333 15th Street
 Catholic University
 1630 Hobart Street
 Government Hotels
 23 Franklin Street, N. E.
 2100 Massachusetts Avenue
 1817 M Street
 213 Mills Building
 2219 California Street
 1311 N Street
 401 D Street, N. E.
 229 W. 105th Street, N. Y.
 2026 F Street
 Government Hotels
 Ballston, Va.
 8228 Hiatt Place
 2040 F Street
 608 A Street, S. E.
 219 E. Capitol Street
 George Washington Inn
 1407 Massachusetts Avenue
 620 D Street, N. E.
 2034 F Street
 Alexandria, Va.
 1010 17th Street
 3006 Dent Place
 1219 11th Street
 223 11th Street, S. E.
 1325 15th Street
 251 Tennessee Avenue, N. E.
 1275 Emerson Street, N. E.
 Brentwood, Md.
 2507 Rhode Island Avenue,
 N. E.
 Alabama Apartments
 619 23rd Street
 1711 Connecticut Avenue
 2007 F Street
 3600 Ordway Street
 2015 G Street
 Government Hotels
 26 Everts Street, N. E.
 182 18th Street, S. E.
 3338 16th Street
 416 2nd Street, N. W.
 Alexandria, Va.
 2133 F Street
 1840 Fairmont Street
 The Mendota
 1762 N Street
 2100 F Street
 2109 F Street
 17 Adams Street, N. W.
 921 H Street
 Alexandria, Va.

- Henderson, Edward P. (III, 14)
 *Hendon, Robert R., Jr. (IV, 51)
 Herbst, Mildred L. (II, 62)
 †Heyman, Ella Helen (II, 0)
 †Hiatt, Mrs. Pearl (II, —)
 Hickox, Ralph (VI, 0)
 Hicks, Arthur J. (IV, 42)
 Hicks, Katherine I. (II, 0)
 Higgins, A. L. (IV, 98)
 Hildreth, Barbara (III, 50)
 Hill, Alice F. (II, 0)
 Hill, Ira B. (IV, 29)
 Hillis, Irma Mildred (II, —)
 Himmelfarb, Jean S. (IV, 0)
 Hinemon, Eugenia R. (II, 15)
 †Hilman, Howell S. (VI, 0)
 †Hilsson, Wm. A. (VI, 8)
 Hobbs, Dorothy F. (II, 12)
 *Hodges, Alice L. (VI, 0)
 Hof, Anne Catherine (IV, 0)
 Hoffman, Herman S. (V, 80)
 Hollis, Lawrence C. (V, 82)
 Holmes, Ruth E. V. (II, 27)
 Holt, John Everett (II, 5)
 Holt, Ralph M. (VI, 0)
 Hope, Mary (II, 6)
 Hornaday, Fred E. (VI, 0)
 Hosford, Helen R. (IV, 101½)
 †Hoskinson, E. Ruth (II, 0)
 Houston, Mary J. (II, 21)
 Howard, Deane C., Jr. (IV, 84)
 *Howard, Dorothy, (II, 0)
 Howell, Herbert E. (VI, 18)
 Hoyem, Constance C. (IV, 0)
 Huber, Josephine M. (IV, 90)
 Hudmow, William Elliot
 Hudson, Harriet V. (II, —)
 Huff, Charles R. (IV, 80)
 Hughes, Charles W. (III, 59)
 †Hughes, John Francis (IV, 0)
 L.L. B., Georgetown Law School
 Hultz, Louise (II, —)
 Hummer, Aubrey (III, 104)
 Hummer, J. Earl (III, 68)
 Hunt, Hannah Ramsden (IV, 0)
 Hunt, James Chapman (IV, 0)
 †Hunter, John A., Jr. (III, 0)
 Huntington, Grace E. (II, —)
 *Hurst, Francis H. (VI, 0)
 Hyslop, Mina Cash, Mrs. (II, 88)
 Hytonen, Lempi J. (II, 0)
 *Jackson, John Blair (IV, 0)
 Jacobson, Robert L. (VI, 16)
 Jeffers, Carlbel (II, 18)
 †Jeffrey, Paul M. (IV, 0)
 Johnson, Alward G., Jr. (II, 0)
 Johnson, Dunbar H., Jr. (IV, 0)
 Johnson, Edward H. (III, 63¼)
 Johnson, Ethel M. (II, 0)
 Johnson, Ethel May (II, 107)
 *Johnson, Glenore (IV, 0)
 †Johnson, Grace Russell (II, —)
 Johnson, Lester W. (IV, 20)
 Johnson, Margaret L. (V, 21)
 Johnson, Marlon J. J. (II, 0)
 †Johnson, Mary A. (II, 0)
 Johnson, Miriam R. (II, 0)
 Johnson, Nobel G. (IV, 0)
 Johnson, Russel M. (VI, 21)
 Johnson, Vera L. (II, 10)
 Johnson, William J. (III, 80)
 Johnston, Edwin M. (IV, 0)
 Johnston, Francis E. (I, 116)
 Johnston, Kenneth A. (VI, 47)
 Jones, Annie (II, 0)
- Ohio
 Okla.
 D. C.
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 Iowa
 Miss.
 Mich.
 N. Y.
 Mo.
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 Neb.
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 Va.
 Neb.
 D. C.
- Marine Headquarters
 The Rochambeau
 1032 23th Street
 Government Hotels
 Brentwood, Md.
 537 21st Street
 453 Q Street
 3432 Holmead Place
 Interior Department
 1604 Columbia Road
 11 R Street, N. E.
 1025 G Street, N. E.
 3144 17th Street, N. W.
 1490 6th Street, N. W.
 5420 10th Street
 910 E Street
 624 Irving Street
 2702 24th Street, N. E.
 1033 80th Street
 1824 Belmont Road
 Brentwood, Md.
 1215 11th Street
 Rockville, Md.
 Station H, R. F. D.
 1733 N Street
 1733 Q Street, N. W.
 1419 Newton Street
 606 Quincey Street
 4607 15th Street, N. W.
 1750 S Street
 1801 16th Street
 815 Taylor Street
 5727 Colorado Avenue
 1638 R Street
 1308 Maryland Avenue, N. E.
 1816 S Street, N. W.
 704 Otis Street, N. W.
 Munsey Building
 2945 Tilden Street
 1032 17th Street
 812 20th Street, N. W.
 1237 Kenyon Street
 1237 Kenyon Street
 Falls Church, Va.
 Cecil Apartment
 1881 Newton Street
 3115 South Dakota Avenue
 406 Columbia Road
 1801 G Street, N. W.
 24 Iowa Circle
 914 H Street, N. W.
 715 19th Street
 214 2d Street, N. E.
 1133 Columbia Road
 1718 18th Street, N. W.
 352 Shepherd Street, N. W.
 23 G Street
 1414 16th Street, N. W.
 1452 Park Road
 1752 Q Street, N. W.
 3121 13th Street, N. W.
 1106 Vermont Avenue
 552 Shepherd Street
 1801 Eye Street
 1259 Fairmont Street
 Bethesda, Md.
 1410 Belmont Street
 1106 Vermont Avenue
 1930 New Hampshire Avenue
 282 1st Street, S. E.
 Y. M. C. A.
 1719 Corcoran Street
 The Kenyon
 706 A Street, N. E.

- Jones, Ellsworth D. (IV, —)
 Jones, Evelyn W. (II, 72)
 Jones, Francis M. (IV, 89½)
 *Jones, Hulda (II, —)
 *Joyce, Gerald T. (VI, 102)
 Judd, Eleanor C. (II, 64)
 Jussen, Jeanne P. (II, 61½)
 Kalupy, Harry H. (III, 105)
 Kar, A. Kenneth (IV, 12)
 *Katapothis, Steven E. (IV, 10)
 Katz, Leon (IV, 6)
 *Kaufman, James L. (IV, 10½)
 Kean, Antoinette G. (II, 6)
 †Keefe, Charlotte M. (II, 6)
 Keene, Henry C. (IV, 52½)
 L.L. B., National University Law
 School, 1918, L.L. M., 1919
 Kelcher, Edith R. (IV, 6)
 *Kelisky, Bessie B. (IV, 16)
 Kellogg, Grace E. (IV, 6)
 †Kellogg, Irene P. (II, —)
 Kelsey, Bernice (II, 83)
 *Kemman, Hugo A. (IV, 113)
 Kennedy, Harriett B. (II, —)
 *Kennedy, Lillian E. (III, 15)
 Kenney, Mary Brown (II, 26)
 *Killinger, Clara E. (II, 6)
 *Kincer, Loeckie Inez (II, 6)
 King, Mary Lee (II, —)
 King, William B. (V, 86)
 Kingsbury, Dorothy E. (IV, 75)
 †Kinyoun, Conrad (III, 116)
 Kitchin, Ione H. (II, 66)
 Klatzkin, Sarah (IV, 6)
 *Kline, M. Ruth (II, —)
 Knaelsy, Edna (II, 12)
 *Knotts, William K. (V, 67½)
 Knowles, Arthur E. (IV, —)
 Koblegard, Ruhl W. (VI, 6)
 Kolhos, Marguerite J. (VI, 6)
 Kouns, Adrienne B. (II, 6)
 *Kral, Georgiana (II, 6)
 †Kriek, John Francis (VI, 6)
 Kuhlman, Dorothy M. (II, 6)
 Kummer, Arthur W. (VI, 6)
 Kunde, Edna A. (II, 6)
 Kunkel, Ruth Lee (II, 6)
 Kutz, Miriam L. (II, 12)
 *Kutz, Semeramis C. (III, 6)
 Kyler, Bessie (II, —)
 Lacey, Anna Janette (IV, 12)
 Ladd, Dorothy D. (II, 15)
 Lake, Orion A. (VI, 6)
 LaMoore, Parker (IV, 86)
 *Landis, Margaret Helen (II, 6)
 Lane, Eleanor (II, 6)
 Lane, Rufus H., Jr. (III, 6)
 Laney, L. Vesta Capers (IV, 6)
 *Langworthy, Doris W. (II, 12)
 Lanier, Ruby Tipton (II, —)
 *Larsen, Ella A. (II, 66)
 Lattman, Isidore (V, 63)
 Lattman, Morris (V, 63)
 †Laughlin, Alton E. (IV, 6)
 †Launbranch, Grace E. (II, 6)
 LaVarre, Lucille (II, 6)
 †Lavery, Thomas C. (IV, 86)
 L.L. B., 1920, George Washington
 University
 Lawrence, Anne T. (II, 6)
 †LeDue, Percy Walborne (III, 116)
 Lee, Agnes Irene (II, 52)
 Lee, John Hyako (III, 6)
 Va. Cherrydale, Va.
 D. C. 3719 Keokuk Street
 D. C. Y. M. C. A.
 N. C. 1860 Mintwood Place, N. W.
 Mass. 67 Adams Street
 D. C. 2026 F Street
 Calif. 1828 35th Street
 La. 2020 G Street
 D. C. 2466 Ontario Road
 Greece 1600 Rhode Island Avenue
 D. C. 453 Newton Street
 Pa. 1125 17th Street
 Mass. 2220 Flagler Place, N. W.
 D. C. 2723 18th Street, N. E.
 Ala. Interstate Commerce Commis-
 sion
 D. C. 118 11th Street, S. E.
 Va. 1925 Rhode Island Avenue,
 N. E.
 D. C. 26 Rhode Island Avenue, N. E.
 D. C. 2001 16th Street
 Md. Mt. Ranier, Md.
 Iowa Walter Reed Hospital
 Va. West Falls Church, Va.
 Mo. 2004 G Street
 Del. 2031 F Street
 Ind. 1724 M Street
 D. C. 4113 Fessenden Street, N. W.
 S. C. 3320 19th Street, N. W.
 Va. Alexandria, Va.
 Mich. Bureau of Standards
 D. C. 5103 Mt. Pleasant Street
 D. C. 1412 Kennedy Street
 D. C. 144 Bates Street
 D. C. 330 C Street, N. W.
 D. C. 2030 G Street, N. W.
 Md. 503 Northbrook Court
 Ind. 730 17th Street, N. W.
 D. C. 2176 Wyoming Avenue
 D. C. 1428 R Street
 Ohio 1011 New Hampshire Avenue
 D. C. 1514 Kilbourne Place
 Pa. 38 Franklin Street, N. E.
 D. C. 3106 N Street
 Nebr. 1727 F Street
 Ind. 1107 I Street, N. W.
 D. C. 2510 Wisconsin Avenue
 Ind. 1914 G Street
 Ind. 1014 G Street
 Ill. 150 R Street, N. E.
 Md. Washington Grove, Md.
 Md. Chevy Chase, Md.
 D. C. Box 103, Station A.
 N. Dak. 9 H Street, N. W.
 Pa. 24 Iowa Circle
 Va. Falls Church, Va.
 Va. Falls Church, Va.
 Ala. 1709 O Street, N. W.
 D. C. 1424 Madison Street
 Ga. 1801 Eye Street, N. W.
 Wis. Government Hotels
 N. Y. 1442 Chapin Street
 N. Y. 1442 Chapin Street
 Wyo. 8112 Park Place, N. W.
 D. C. 711 Unshur Street, N. W.
 D. C. 1215 Emerson Street
 Mo. 1627 16th Street
 Va. 715 Massachusetts Avenue,
 N. E.
 D. C. 217 Varnum Street
 D. C. 327 16th St., N. E.
 Ill. 2110 1st Street

†McWhorter, Marlon F. (II, 9)	Ga.	2443 Ontario Road, N. W.
MacDonald, Junius R. (VI, 6)	N. C.	1736 G Street, N. W.
MacEwen, Harold E. (IV, 6)	N. Y.	1736 G Street, N. W.
MacGillivray, Helen (II, 6)	Mass.	2148 Wyoming Avenue
Machmer, Estella R. (VI, 6)	Pa.	1215 10th Street, N. W.
Mackey, Minnie M. (II, —)	Ill.	219 3d Street
*MacKinnon, Elizabeth H. (II, —)	Fla.	1522 18th Street
MacMillan, Clifford J. (IV, 6)	Calif.	1826 G Street, N. W.
*MacMurray, Carol (II, 6)	D. C.	2998 G Street
Macomber, Douglas W. (VI, 35)	Colo.	Y. M. C. A.
Mague, Roscoe Edwin (VI, 52)	Mass.	1603 G Street, S. E.
*Mahan, Helen V. (II, 6)	Mass.	1346 Oak Street
†Mahoney, Ursula M. (II, —)	Iowa	84 V Street
Major, Ruth Fales (II, 6)	D. C.	1731 U Street
*Malone, Lillian (V, 28)	Va.	Alexandria, Va.
Malone, Marion Raymond (I, 6)	D. C.	2343 Green Street, S. E.
Mankey, Helen Laura (III, 64)	D. C.	2914 11th Street
*Manning, Ellis W. (VI, 6)	D. C.	1307 Park Road
†Manning, Mrs. Lucy R. (IV, 6)	Okla.	1245 Crittenden Street
Manson, Earle West (IV, 6)	D. C.	119 W Street, N. W.
Maraldi, Carl Francis (II, 78)	Mass.	825 5th Street, N. W.
Markley, Mac Adelle (II, 63)	D. C.	136 F Street, S. E.
Marquis, Merth (IV, 6)	Okla.	2120 H Street, N. W.
Marquis, Ronald Nyman (VI, 6)	Okla.	732 21st Street
Marshall, Murray L. (IV, 6)	Md.	Landover, Md.
Martin, Edwin Manton (VI, 6)	D. C.	1940 Biltmore Street, N. W.
†Martin, Louise T. (II, —)	Ind.	1476 Clifton Street
Martin, Mary L. (II, 6)	D. C.	1940 Biltmore Street
Mason, Beatrice M. (II, 6)	D. C.	3913 Morrison Street
Mason, John Russell (IV, 51)	D. C.	608 9th Street, N. E.
*Massey, Mary Graham (II, 6)	D. C.	1326 Valley Place, D. C.
Massey, Mark F. (III, 6)	Kans.	918 23rd Street
Mathews, Alma Lenore (II, 6)	Pa.	Government Hotels
Mattox, Virginia A. (II, 6)	Va.	1758 Corcoran Street
†Maulbetch, Emily M. (II, 6)	Pa.	1819 Massachusetts Avenue
†Mawson, Helen (II, —)	Ind.	The Kedrick
Maxam, Mary Agnes (VI, 6)	D. C.	1730 Euclid Street
Maxwell, Charles Warren (IV, 75)	Conn.	4 Girard Street, N. E.
†Mende, John Myles (III, 6)	Mass.	25 Michigan Avenue, N. E.
Mehlig, May O'Rourke (II, 19)	D. C.	1726 Massachusetts Avenue
Mehring, Arnon Lewis (III, 80)	Pa.	418 11th Street, N. E.
Melchior, Eleanor B. (II, 6)	Va.	Alexandria, Va.
Mendelsohn, Eva (II, 6)	D. C.	1527 14th Street
†Mendelson, Israel J. (IV, 6)	D. C.	2919 M Street
Mentzer, Elsa Victoria (II, 6)	Pa.	Government Hotels
Merdian, Bertha (II, 29)	Ill.	324 5th Street, S. E.
*Merrick, Manila C. (II, 6)	Iowa	1647 Lamont Street
Merrill, Lottie (III, 18)	N. Y.	2611 F Street, N. W.
Merriman, Ervin E. (IV, 31)	Ind.	400 M Street, N. E.
†Merritt, Muriel F. (II, —)	D. C.	4411 39th Street
†Mertz, Thelma Irene (II, 6)	Pa.	State War and Navy Bldg.
Messer, Agnes Henderson (II, 30)	D. C.	2304 Macomb Street
Metsker, John Weaver (III, 30)	Ohio	932 K Street, N. W.
Metzeroth, Margaret (II, 64)	D. C.	119 12th Street, S. E.
Metzerott, John H. (IV, 6)	D. C.	708 The Northumberland
†Meyers, Cecelia (IV, 6)	R. I.	2632 Adams Mill Road
†Middleton, William (III, 6)	Va.	East Falls Church, Va.
Millard, Doris D. (II, 6)	Mass.	Government Hotels
Miller, Carrie May (VI, 6)	Mo.	607 Third Street, N. W.
Miller, Claudia S. (II, 6)	Va.	327 North Carolina Avenue, S. E.
Miller, Lenna Katherine (II, 3)	Va.	Oakton, Va.
Miller, Mary Moore (II, 6)	Md.	3325 18th Street, N. W.
Miller, Robert H., Jr. (III, 6)	Md.	3325 18th Street, N. W.
Miller, Elizabeth B. (II, 23)	Mich.	1605 Hobart Street
*Milne, Estelle L. (II, 6)	D. C.	1661 Newton Street
*Mihler, Alta May (IV, 6)	Ind.	1259 Park Road
*Mitchell, Margaret L. (IV, 6)	Minn.	1419 R Street, N. W.
Moddemo, Louise (II, 6)	Kans.	1524 L Street
*Molater, William A. (VI, 6)	D. C.	1227 Lawrence Street, N. E.
Mon, Ora May (II, 10)	Ill.	The Sherman
Moncure, Eliza M. (II, 19)	D. C.	Woodworth Apartment
Moodie, Mary Ridley (II, 6)	Texas	1302 Connecticut Avenue
Mooney, Mildred F. (II, 6)	D. C.	1200 E. Capitol Street
*Moore, Arta (II, 6)	Ohio	107 Maryland Avenue, N. E.

- Morgan, Eva (III, 0)
 Morgan, Grace Maude (II, 0)
 *Morrison, A. P. (IV, 0)
 *Morrison, Otho W. (IV, 0)
 *Morrison, Ralph L. (IV, 0)
 Morrow, Clara Allen (II, 70)
 Moseley, Elizabeth L. (II, 0)
 Moskey, Frank R. (II, 0)
- Mottern, Albert J. (III, 113)
 Moulton, Edward Burton (VI, 33)
 *Moulton, George P. (III, 120)
 †Moulton, Parthia C. (IV, 0)
 Moyer, Ada L. (II, —)
 *Moyer, Herman Henry (III, —)
 Moyle, James Douglas (VI, 0)
 Murphy, Alice M. (III, —)
 *Murphy, Marvin (IV, 0)
 †Murrill, Minnie D. (II, 0)
 †Musher, Albert (III, 0)
 Mussman, Michael Angelo (II, 24)
 Myers, John Thomas (IV, 0)
 Naylor Estill Ess (IV, 24)
 Naylor, Mary Bodine (II, 10)
 Naylor, Theodore H. (IV, 0)
 †Nearman, Helen M. (IV, 0)
 *Neidig, Christine E. (II, 10)
 Nelson, Axel (III, 120)
 Nelson, Esther (II, 0)
 Neuman, Howard Ellsworth (IV, 0)
 Neumann, Louis D. (IV, 48)
 *Nevin, Edith L. (II, 0)
 Newell, Alphonso Murst (II, 0)
 Newman, Adelaide (IV, 0)
 Newman, Harry A. Wright (II, 35)
 *Newman, Linn Alberta (II, 21)
 Newman, Raymond W. (V, 24)
 Newton, Hazel Mae (VI, 0)
 Newton, Helen K. (II, 0)
 Nichols, Clarence W. (VI, 0)
 Nichols, Stanley W. (VI, 24)
 Nichols, Grace D. (II, 0)
 Nichols, Lois (II, 8)
 Nicholson, Margaret M. (III, 34)
 *Niebell, Ruth M. (II, 0)
 *Noel, Adeline (II, 0)
 Nolan, James Francis (IV, 75)
 *Noll, Hazel (II, 0)
 Normant, Maude (V, 0)
 Obenchain, Mabel Clare (II, 64)
 O'Brien, Lillian L. (II, 0)
 O'Connell, William B. (IV, 74)
- Oden, Vivian (IV, —)
 Omwake, Katharine Tait (II, 0)
 O'Neal, Ethel W. (II, —)
 O'Neill, M. Virginia (II, 0)
 O'Neill, Naomi L. (II, —)
 O'Shaughnessy, Kathleen D. (II, 0)
 Ostrow, Aaron Harry (IV, 0)
 *O'Toole, Edward Austin (IV, 112)
 Overstreet, Dorothy Louise, (II, 0)
 Overstreet, Walter E. (IV, 84½)
 Owens, Clarence J., Jr. (IV, 12)
 *Owens, Marie Louise (II, —)
 Pabst, Anna M. (II, 10)
 Pabst, Helen Gertrude (II, 47)
 Packer, Earl L. (IV, 35)
 †Page, Sara O. (II, 0)
 Palmer, J. Joseph W. (VI, 21)
 Palomar, Gaudiosa P. (VI, 23)
 Parks, Ruth Anderson (III, 0)
 †Parrott, Elizabeth H. (II, 30)
 Passinacqua, Luis A. (V, 42)
 Patterson, Bernice A. (II, 0)
- Ill.
 D. C.
 Ohio
 Ohio
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 D. C.
 Texas
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 Ga.
 D. C.
 P. I.
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 P. Rien
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- 1313 K Street, N. W.
 1642 Newton Street
 1704 G Street, N. W.
 1704 G Street, N. W.
 Station H, Route A, D. C.
 Wardman Park Inn
 913 M Street
 1822 Massachusetts Avenue,
 N. W.
 2517 Wisconsin Avenue
 1419 Girard Street, N. W.
 1483 Newton Street
 629 Lamont Street, N. W.
 2006 G Street
 323 11th Street, S. W.
 Cosmos Club
 610 Lexington Place, N. E.
 1824 Eye Street, N. W.
 3404 Prospect Avenue
 2849 Connecticut Avenue
 Y. M. C. A.
 Fairfax, Va.
 414 Sixth Street
 629 12th Street, N. E.
 3204 Park Place
 1723 H Street, N. W.
 Government Hotels
 135 Patent Office
 317 7th Street, N. E.
 638 D Street, N. E.
 1916 16th Street
 1726 P Street
 3922 Carlton Avenue, N. E.
 1404 Girard Street, N. W.
 1733 N Street, N. W.
 House Office Building
 1500 Vermont Avenue, N. W.
 1319 Harvard Street, N. W.
 1625 R Street, N. W.
 482 New Jersey Avenue, S. E.
 1818 19th Street, N. W.
 Government Hotels
 4004 New Hampshire Avenue
 1000 Maryland Avenue
 2626 G Street
 Government Hotels
 Delta Tau Delta House
 Silver Spring, Md.
 1619 R Street, N. W.
 323 E. Capitol Street
 1633 Wisconsin Avenue
 1300 Massachusetts Avenue,
 N. W.
 1426 R Street
 1846 Ingleside Terrace
 911 Taylor Street
 3353 14th Street
 3353 18th Street
 4101 13th Street, N. W.
 1414 12th Street, N. W.
 33 Girard Street, N. W.
 619 Culney Street, N. W.
 216 East Capitol Street
 1000 Vermont Avenue
 1000 Vermont Avenue
 4623 13th Street
 4623 13th Street
 The Marlborough
 1018 Vermont Avenue
 54 V Street
 403 Tudor Hall
 1420 R Street, N. W.
 1219 Kenyon Street
 337 21st Street
 800 E Street, N. E.

- †Patterson, John Thomas (IV, 6)
 Payne, Robert Bennett (IV, 6)
 *Payton, Charles H. (IV, —)
 Pazour, Marie (IV, 106)
 Pearson, Essie Lee (II, 30)
 *Pepper, Thomas Donald (IV, 6)
 Perkins, Helen Fletcher (V, 6)
 Perlman, Rebecca (II, 88)
 Perry, Arthur C. (IV, —)
 Perry, Gertrude D. (II, 6)
 *Perry, Virginia C. (II, 6)
 Peterson, Caroline E. (VI, 30)
 Peterson, Emmett James (IV, 37)
 Peterson, Robert K. (II, 12)
 Peterson, William Walton (IV, 84)
 Petran, Katherine A. (VI, 6)
 *Petty, Ethol (IV, 6)
 Phillips, Charles E. (IV, 6)
 Phillips, Dorothy R. (III, 2)
 Phillips, Ruth (II, 6)
 Phillips, Ruth S. (II, 106)
 *Phillips, Shelby (IV, 49)
 Phoebeus, Gladys Edith (III, 6)
 Pickering, Grace (II, 18)
 Pickering, Wasele (II, 6)
 Pitcher, Lois (II, 61)
 †Pittman, Estelle M. (II, 6)
 Pitta, Bessie May (II, —)
 *Pixley, Catharine H. (IV, 6)
 Porter, Charles W. (III, 108)
 *Porter, George Brown (IV, 6)
 Powell, Martha Portwood (II, 6)
 *Powers, Genevieve A. (II, —)
 *Powers, Mary E. (II, —)
 †Powers, Robert S. (IV, —)
 Preece, J. A. A. (V, 6)
 Prentiss, William C., Jr. (III, 6)
 Prescott, Olive (III, 113)
 Prober, Thomas F. (III, 162)
 Proctor, Lucy R. (II, 6)
 Protas, Maurice (V, 87)
 Pryor, George W. (IV, 6)
 Pulliam, Robert W. (IV, 50)
 *Pullman, Cora (II, 6)
 Pusey, Elmer M. (VI, 93)
 Pusey, Lewis Barron (III, —)
 Putnam, Amy D. (I, 18)
 *Quick, Christine (II, —)
 Quinlan, Harry Dowling (IV, 6)
 Quinlan, Joseph P. (IV, 6)
 Quinn, David Long (IV, 66)
 Quinn, Herbert E. (IV, 6)
 *Quisenberry, Mary A. (II, —)
 *Radelfinger, Blanche (II, 6)
 Ramsay, Lena (II, 6)
 *Ramsay, Walter G. (VI, 6)
 Ramsey, Elizabeth R. (III, 6)
 Ramsey, Margaret C. (II, 27)
 *Ranck, James B. (I, 108)
 Randall, Lorena (II, 6)
 Randolph, Stella (II, 374)
 †Ranker, Gertrude A. (IV, 6)
 Ransom, Mabel (II, 6)
 Rauber, Frances G. (II, 6)
 Raum, Muriel A. (II, —)
 *Ravenscroft, Elsie R. (V, 6)
 Rayer, Irene (II, —)
 *Reagle, Ruth (IV, 6)
 Ream, Cecile A. (II, 6)
 Redinger, Carl Chalmers (IV, 19)
 *Reed, Cynthia V. (II, —)
 †Reed, Fred Cassius (V, 28)
 D. C. 1335 Park Road, N. W.
 Md. 1333 Irving Street
 Mass. 1742 S Street
 S. Dak. 1520 P Street
 D. C. 22 Channing Street
 D. C. 2006 N Street, N. W.
 Pa. 1828 Columbia Road
 D. C. 608 Louisiana Avenue, N. W.
 Texas 801 L Street
 D. C. 2018 G Street
 D. C. 2018 G Street
 Calif. Bureau of Medicine and
 Surgery
 Calif. 246 House Office Building
 Va. 2015 Eye Street, N. W.
 Iowa Y. M. C. A.
 Mexico 1340 Vernon Street
 Iowa 427 Senate Office Building
 D. C. Takoma Park, D. C.
 D. C. Takoma Park, D. C.
 D. C. 3223 New Hampshire Avenue,
 N. W.
 D. C. Takoma Park, D. C.
 D. C. 1245 Irving Street, N. W.
 D. C. 1923 N. Capitol Street
 Ind. The Toronto
 Ind. The Toronto
 D. C. 3910 McKinley Street
 Md. Chevy Chase, Md.
 Texas 2816 Georgia Avenue
 Fla. Bureau of Standards
 Ohio 1827 S Street, N. W.
 D. C. 1335 Newton Street, N. E.
 D. C. 1124 Eleventh Street, N. W.
 Vt. 1628 Columbia Road
 N. Y. 1628 Columbia Road
 N. Y. 225 Third Street
 D. C. 1511 23d Street
 D. C. 1720 Oregon Avenue
 D. C. Burlington Hotel
 D. C. 2013 Cambridge Place, N. W.
 D. C. 918 M Street
 D. C. 1814 18th Street
 D. C. Takoma Park, D. C.
 N. C. Y. M. C. A.
 Va. 1332 Massachusetts Avenue
 Md. 127 T Street, N. W.
 Md. Bethesda, Md.
 N. J. 721 16th Street
 Va. Munsey Building
 Honolulu House Office Building
 Mass. 1408 N Street, N. W.
 Md. 608 G Street, S. W.
 Texas 1230 11th Street, N. W.
 Ky. 1812 N Street
 D. C. 1431 Chapin Street
 D. C. 2033 16th Street
 D. C. 6934 9th Street
 Va. Cherrydale, Va.
 D. C. 812 Massachusetts Avenue,
 N. E.
 D. C. 1405 15th Street
 Md. Takoma Park, Md.
 Ill. 1608 22nd Street, N. W.
 Ohio 21 K Street, N. E.
 Wash. Government Hotels
 D. C. 2025 Kalorama Road
 D. C. 1017 Eye Street
 Md. 1619 R Street, N. W.
 D. C. 1326 Harvard Street
 D. C. 71 V Street, N. W.
 Ohio 7 Rhode Island Avenue, N. E.
 W. Va. 2104 N Street
 Calif. 1606 Hobart Street
 D. C. 804 17th Street

- Reed, Mabel C. (II, 8)
 Reed, Paul Clinton (IV, 30)
 Reese, William E. (IV, 58)
 Reeve, Thelma Beatrice (IV, 0)
 Reeves, George T. (IV, 113)
 †Regan, Agnes E. (II, 0)
 Regan, Ruth (IV, 21)
 Reigner, Horatio I. (IV, 0)
 *Reyes, Rafael G. (III, —)
 Reynolds, Charles S. (IV, 0)

 Reynolds, Hazel V. (IV, 0)
 Rice, Elizabeth N. (II, 0)
 Richards, Miriam G. (II, 36)
 Richards, Winifred (II, 0)
 *Richardson, Dorothy (II, —)
 †Richardson, Mary Hume (IV, 21)
 Richardson, W. L. (IV, —)
 Richardson, William W. (IV, 8)
 *Richie, Verna E. (II, 0)
 Richner, Theophilus G. (II, 0)
 Ricketts, Charles W., Jr. (II, 0)
 †Riegner, Charles H. (VI, 0)
 Righter, Mary Y. (II, 0)
 Riley, Annabel (II, 0)
 Roach, Jessie D. (IV, 13)
 Robb, Seymour (II, 30)
 Robbin, Frances R. (II, 0)
 †Robertson, John R. (IV, 0)
 *Robinson, M. Edith (III, —)
 Robison, Daisy S. (II, 19)
 Robison, John M. (II, 0)
 Roche, Leo Henry (VI, 100)
 *Rockwell, Almon F. (IV, 0)
 *Rockwood, Maud W. (II, —)
 *Rod, Jeannette (II, 0)
 *Rogers, Annabelle (II, 0)
 Rogers, Herbert Orville (IV, 0)
 Rolfe, Maxine Frances (II, 0)
 Rommel, George F. (VI, 46)
 Rommey, Miles, Jr. (IV, 12)
 Rooney, William F. (IV, 45)
 Rose, Helen T. (II, 13)
 Rosenberg, Jennie (II, 0)

 *Rosenbloom, Etta (II, 0)
 *Rosenbloom, Sara R. (II, —)
 Rosenlund, Arthur J. (IV, 0)
 Rosinski, Gertrude L. (IV, 18)
 Ross, Kathleen (IV, 0)
 Rowland, Mittie E. (II, 54)
 *Royer, Charles Edward (IV, 136)
 Ruddiman, Minnette H. (II, 30)
 Ruppert, Margaret A. (II, 0)
 Russell, Margaret C. (III, 0)
 Russell, Paul R. (VI, 42)
 Ruthven, Mary Frances (II, 14)
 *Ryan, Richard L. (III, 129)
 *Sandborn, Elizabeth (II, 131)
 Sandell, Alice (II, 0)
 *Sanderson, Mabel M. (II, 0)
 Savage, Robert Lee (IV, 23)
 *Savage, Willard H. (VI, 0)
 Sawyer, Vera C. (II, 25)
 Sawyer, Verdon A. (III, 0)
 Scalfa, Mary L. (IV, 0)
 †Scala, Norman P. (V, 58)

 Scheufler, Edward L. (IV, 42)
 *Schiller, Milford (VI, 3)
 Schlobahn, Otto A. (IV, 98)
 *Sehnider, Abe (III, 0)
 *Schoenthal, Minnie P. (II, 0)
 Schoenfelder, Helena D. (II, 30)
 Schofield, Irma Adell (II, 84)

 Iowa
 La.
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 D. C.
 Iowa
 D. C.
- Government Hotels
 House Office Building
 1513 28th Street
 1319 30th Street, N. E.
 Falls Church, Va.
 615 L Street, N. E.
 Maury Apartment
 901 Rittenhouse Street
 1533 I Street
 304 North Carolina Avenue,
 S. E.
 503 River Road, Bethesda, Md.
 4832 16th Street, N. W.
 Chevy Chase, Md.
 711 Taylor Street
 1310 Irving Street
 122 E. Capitol Street
 1628 Hobart Street
 1735 G Street
 1126 12th Street
 1150 17th Street
 1736 F Street, N. W.
 621 E Street, N. E.
 717 H Street
 1813 F Street
 Government Hotels
 1121 Seventh Street, N. E.
 3235 Hiatt Place
 825 Vermont Avenue
 1415 Park Avenue
 109 C Street, S. E.
 108 C Street, S. E.
 28 T Street, N. W.
 3128 Highland Place, N. W.
 1215 E. Capitol Street
 2104 18th Street
 Hyattsville, Md.
 1521 Belmont Street, N. W.
 184 Quincey Place, N. E.
 21 Myrtle Street, N. E.
 1100 Vermont Avenue, N. W.
 440 New Jersey Avenue, S. E.
 Hyattsville, Md.
 129 N. Royal Street, Alexan-
 dria, Va.
 223 Morgan Street
 Rutland Courts
 1426 Columbia Road, N. W.
 1216 K Street
 815 10th Street, N. W.
 707 22nd Street
 1116 Rhode Island Avenue
 1647 Lamont Street
 1261 Irving Street
 1123 6th Street, N. W.
 1421 Buchanan Street, N. W.
 The Argyle
 1215 Euclid Street
 1326 O Street
 4244 M Street
 1409 21st Street
 712 Unshur Street
 813 4th Street, N. E.
 92 Bryant Street, N. W.
 Y. M. C. A.
 3419 41st Street, Chevy Chase
 218 South Carolina Avenue,
 S. E.
 Y. M. C. A.
 1328 Quincey Street
 National Press Club
 823 Quebec Place
 904 Westminster Street
 1726 Willard Street
 1320 Fairmont Street, N. W.

- Schoffstall, Charles W. (III, 74)
 Schubert, Alleen (II, 6)
 Schuster, Marjorie (II, 6)
 Schwartz, Marion E. (IV, 24)
 *Schwartz, Wm. W. (IV, 60)
 *Scott, Ralph S. (II, 121)
 Selden, Paul Herbert (II, 60)
 Selvey, Helen R. (II, —)
 †Severance, Clifton H. (VI, 6)
 †Severson, Paul A. (IV, 12)
 *Shadrach, Elizabeth (II, 6)
 Shanahan, Katherine A. (II, —)
 *†Shaughnessey, John J. (IV, 6)
 †Shaw, Howard Knott (IV, 6)
 Shaw, George B. (III, 62½)
 Shea, Earl Clifford (VI, 103)
 Shea, James W. (IV, 37)
 Shea, Mary Frances (II, 12)
 Sheffield, Edgar Lee (III, 6)
 *Sheldrake, Mary O. (II, —)
 Shelton, Mamie R. (II, —)
 Shepard, Alice Lydia (IV, 6)
 †Shepard, Ernest S. (IV, 32)
 *Sheppard, Richard F. (IV, 6)
 Sheriff, George R. (IV, 23½)
 *Shisler, George (IV, 106)
 Short, Verna G. (VI, 6)
 †Shugrue, Fenwick (V, 58½)
 *Shumaker, W. Warren (IV, 6)
 Siegler, Catherine E. (II, 38)
 Sigman, Dorothy M. (II, 28)
 Silver, Reva III, 6)
 *Silverman, Rose C. (II, 6)
 Simmons, William V. (IV, 42)
 Simon, David Robert (IV, 24)
 *Simon, Lois J. (VI, 6)
 *Skinker, Julian H. (IV, —)
 *Skinner, L. Isabel (II, 6)
 †Skinner, Marjorie F. (II, 6)
 Sladen, Wm. M. (II, 30)
 *Slapnicka, E. Frances (IV, 6)
 Slater, Eva G. (II, 6)
 Sloan, Marguerite P. (IV, 19)
 Sloane, Norma L. (II, 6)
 Smith, Alice C. (II, 64)
 Smith, Ardis A. (IV, 6)
 *Smith, Alleen Carolyn (II, 6)
 Smith, Audley L. (IV, 27)
 Smith, Conover Carnes (IV, 6)
 *Smith, Helen (II, 6)
 †Smith, Hugh Stewart (IV, 28)
 Smith, Lillian Martha (II, 43)
 †Smith, Margaret G. (II, 6)
 Smith, Margaret Mary (IV, 100)
 Smith, Robertene M. (VI, 6)
 Smith, Virginia Marian (II, 6)
 Smithwick, William Vereen (IV, 61)
 *Smoot, Ernest (VI, 6)
 Smyth, Walter Weyler (I, 78)
 Snellings, Temple (II, —)
 Snider, George Gordon (V, 48)
 Soars, Margaret Isabel (V, 61)
 Sorver, D. Glenn (III, 6)
 *Sparka, Anna Regina (II, 6)
 Spear, Albert A. (III, 47)
 Spear, Toy Harlin (IV, 25)
 Speer, Ray (II, 6)
 *Spencer, Evelyn L. (II, 6)
 *Spoorzi, Jay Fuller (IV, 31)
 Springston, George B. (IV, 88)
 †Sprinkle, Felicia R. (II, —)
 Stadler, Robert B. (VI, 31)
 Stambaugh, Anna M. (II, —)
 †Starus, Ora Myrtle (II, 6)
 Pa.
 D. C.
 Va.
 D. C.
 Mo.
 Md.
 D. C.
 W. Va.
 N. H.
 D. C.
 Ohio
 Kans.
 Mass.
 N. J.
 Md.
 S. Dak.
 D. C.
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 D. C.
 Pa.
 Va.
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 Iowa
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 W. Va.
 Ill.
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 Md.
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 Miss.
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 Wis.
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 Iowa
 N. Y.
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 Conn.
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 D. C.
 Md.
 N. Y.
 S. Dak.
 D. C.
 Utah
 Conn.
 Va.
 Mich.
 Pa.
 Wash.
 D. C.
 D. C.
 Okla.
 Kans.
 N. Y.
 Ill.
 Ohio
 Minn.
 Texas
 Va.
 Ky.
 1829 10th Street
 114 Maryland Avenue, N. E.
 1723 Eye Street
 2414 12th Street, N. E.
 1412 G Street
 Hyattsville, Md.
 1862 Park Road
 2606 Mozart Place
 1270 New Hampshire Avenue
 3014 G Street
 1115 K Street
 1422 33rd Street
 53 Eye Street, N. W.
 1109 Vermont Avenue, N. W.
 Bureau of Standards
 1842 Calvert Street
 4427 Iowa Avenue
 723 Morton Street
 1353 Taylor Street, N. W.
 338 10th Street, N. E.
 901 M Street
 1208 Kenyon Street
 1114 25th Street, N. W.
 1349 Columbia Road
 1413 Chaplin Street
 112 E. Capitol Street
 1329 Belmont Street
 1501 Calvert Street
 2184 F Street
 115 Oak Avenue, Takoma Park
 2600 Mozart Place
 Odenton, Md.
 813 11th Street, S. E.
 2406 Ontario Road
 2802 Cathedral Avenue
 1414 Girard Street
 1014 17th Street
 3002 P Street
 764 3rd Street
 419 E. Capitol Street
 1512 Corcoran Street
 Government Hotels
 810 Indiana Avenue
 The Burlington Hotel
 3243 88th Street
 703 20th Street
 1727 Columbus Road, N. W.
 2644 New Hampshire Avenue
 Burlington Hotel
 North Brook Court
 421 G Street, N. E.
 2019 14th Street, N. W.
 1209 B Street, N. E.
 Riverdale, Md.
 1241 Euclid Street, N. W.
 The Calverton Apartment
 2230 California Street
 3521 Connecticut Avenue
 1819 N Street
 1120 12th Street
 1421 Chapin Street
 2420 Albemarle Street, Chevy
 Chase
 303 D Street, N. W.
 641 Eye Street, N. E.
 4 6th Street, N. E.
 Rutland Courts
 1020 17th Street, N. W.
 Government Hotels
 House Office Bldg.
 1518 K Street, N. W.
 1423 Newton Street
 1906 H Street, N. W.
 Falls Church, Va.
 1107 Eye Street, N. W.

- Stearns, Mrs. Alma C. (II, 0)
 Steel, Annette E. T. (II, 36)
 Steele, Marguerite L. (II, —)
 Steele, Mildred E. (II, 36)
 Stephens, Ernest Wright (IV, 85)
 Stevens, James E. (IV, 15)
 *Stevens, Maude M. (II, 0)
 *Stevenson, Hazel (II, —)
 *Stevenson, Carroll J. (II, —)
 *Stevenson, Mae R. (II, 0)
 Stewart, Lelah E. (II, —)
 Stewart, Mary (II, 35)
 Stiles, Theobelle (II, 12)
 Stockett, Imogene C. (II, —)
 Stofregen, Anna C. (II, 33)
 Stone, Darrus Marshall (IV, 0)
 Stork, Dorothea P. (II, 33)
 Stormont, Donald S. (IV, 0)
 Stoup, Earl A. (III, 0)
 †Stout, Forrest Dwight (V, 80)
 Stoutmyer, Helen (III, 0)
 Stroup, Horace Clifford (V, 74)
 *Strubinger, David B. (IV, —)
 *Stuard, Cornelia (II, 0)
 Stuart, Marjorie S. (V, 111)
 Sturgis, Hugh Legare (II, 107½)
 Sullivan, Angela (II, 0)
 Sullivan, James Francis (VI, 0)
 Sutfin, James Arthur (III, 0)
 †Sutton, Violetta Boswell (II, 36)
 Swecker, Icie Lillian (IV, 45)
 Sweeney, William T. (III, 0)
 Swett, Virginia (II, 31)
 Symmonda, Katherine G. (V, 90)
 Symons, Arthur (IV, 41½)
 Sze, Miss Wai Ling (II, 36)
 Taft, B. Gertrude (II, —)
 Tanall, Rebecca C. (I, 9)
 †Tarwater, Elmer L. (IV, —)
 Temin, Henry (IV, 22)
 Tepper, Elizabeth Rose (II, 0)
 *Terhune, Leola B. (IV, 0)
 *Thayer, Olive M. (II, —)
 Thom, Ada H. (II, 0)
 Thomas, Eugene Short (IV, 0)
 Thompson, Grace H. (II, 0)
 Thomson, Elsie A. (VI, 0)
 Thorne, Francis Bower (II, 0)
 Thorwarth, Laura E. (II, 0)
 Thrush, Roland D. (IV, 0)
 †Thurtell, Frances (II, 0)
 Tice, Howard McColly (IV, 24)
 Ticknor, Clinton H. (IV, 0)
 Tillinghast, Jesse K. (VI, 0)
 Tolson, Clyde A. (IV, 0)
 Tolson, Hilory A. (IV, 17)
 *Townsend, Mildred L. (II, 0)
 Tracy, Stanley James (IV, 12)
 *Trauger, Laura (II, 0)
 †Truscott, Hazel Roberta (IV, 0)
 Trusheim, Edwin Reid (IV, 0)
 Turner, Grace C. (II, —)
 Turoff, Dora M. (II, 13)
 †Tutt, Helen Warren (Mrs.) (IV, 86)
 *Uglow, Kenneth M. (IV, 0)
 *Usilton, Lida J. (V, 39)
 Vaccaro, Mary Josephine (II, 0)
 Vaccaro, Josephine (II, 0)
 VanDoren, Lurana C. (III, 37)
 VanNess, Ethel M. (II, 90)
 Van Slike, Bertha M. (II, 0)
 *Van Waters, Sherwood P. (III, 117)
 Vaughn, Ina (II, 0)
 Pa. 2919 South Dakota Avenue,
 N. E.
 Pa. 2919 N Street, N. W.
 Pa. 1423 Clifton Street
 D. C. 616 7th Street, N. E.
 S. Dak. 2505 19th Street
 Ind. 2134 H Street
 Ind. Monmouth Hotel
 Ind. Government Hotels
 Utah Ethelhurst Apartments
 Ill. 4417 Georgia Avenue
 Ind. 502 S. Clifton Terrace
 Tenn. The Wentworth
 N. Dak. Copley Courts
 D. C. 312 4th Street, S. E.
 Latvia Rockville, Md.
 D. C. 1811 24th Street, N. W.
 Va. Alexandria, Va.
 D. C. 223 S Street, N. E.
 D. C. 415 Kenyon Street
 Kans. 2909 N Street, N. W.
 D. C. 4012 14th Street, N. W.
 Pa. The Maury
 D. C. 201 A Street, S. E.
 D. C. 2110 Eye Street
 D. C. 1315 12th Street
 Md. Hyattsville, Md.
 D. C. 1308 Kenyon Street
 D. C. 502 1st Street, S. E.
 D. C. 1534 16th Street
 Pa. 1441 Girard Street
 Va. Clarendon, Va.
 Va. Alexandria, Va.
 Md. Chevy Chase, Md.
 Md. Chevy Chase, Md.
 Mich. 715 Park Road
 China 2812 19th Street
 Va. 1204 Franklin Street
 Tenn. 2142 Pennsylvania Avenue
 Mo. 907 13th Street
 D. C. 315 4½ Street, S. W.
 D. C. 1239 Maryland Avenue, N. W.
 Md. 1819 G Street
 Ill. 1116 15th Street
 Minn. 1229 Connecticut Avenue
 D. C. 717 Massachusetts Avenue
 D. C. 1840 Billmore Street
 N. Y. 1830 16th Street
 D. C. 205 D Street, N. E.
 Minn. 1320 Park Road
 Pa. 1230 11th Street
 Nev. 1217 Delafield Place
 Pa. 2005 O Street
 Iowa Gordon Hotel
 Pa. 28 Preston Avenue, Cherry
 dale, Va.
 Iowa 1733 N Street
 Iowa 1733 N Street
 Ga. 319 Shenherd Street
 Utah 2466 Ontario Road
 N. J. 1104 M Street
 D. C. 2130 Walnut Street, N. E.
 D. C. 210 B Street, S. E.
 Ind. 322 Maryland Avenue, N. E.
 D. C. 1804 2nd Street
 Texas 2016 G Street, N. W.
 Pa. 1808 Massachusetts Avenue
 D. C. 2034 North Capitol Street
 D. C. 500 6th Street, N. E.
 Italy 216 H Street, N. W.
 D. C. 723 8th Street, N. E.
 N. J. 918 14th Street
 N. Y. 1633 Newton Street
 N. Y. 1338 Vermont Avenue
 Ky. 2143 Pennsylvania Avenue

- Veley, Bernice A. (III, 14)
 Veley, Edna Louise (II, 0)
 Velle, Edna M. (II, 0)
 Vickers, Rose (II, 53)
 Vidmer, Julian R. (II, 0)
 Vliet, Andrew M. (IV, 101½)
 Voelkner, Viola M. (II, —)
 Waddell, Elizabeth F. (IV, 102)
 Wagner, Helen G. (II, 0)
 Wagonseller, Earl A. (IV, 10)
 Walts, Katherine E. (II, 73)
 Walker, C. Melville (VI, 60)
 Walker, Effie Lee (II, 0)
 †Wall, Irving Israel (IV, 0)
 †Walsh, John Butler (IV, 12)
 †Walter, Nellie M. (II, 0)
 Walters, Sybil (II, 21)
 †Wang, Robert U. (IV, 108)
 Ward, Arthur L. (II, 0)
 Waring, Martha Lucy (III, 85)
 Warner, Wellman J. (V, 24)
 †Warren, Dorothy (II, 0)
 Warren, Lee Ella (IV, 84)
 Watts, Alice Marie (IV, 60)
 †Watts, Meita F. (II, 0)
 Weadon, Leafy Margaret (II, 13)
 Webster, Belle (II, 86)
 Weckerly, Ida (IV, 0)
 Weckerly, Louise H. (II, —)
 †Weedon, De Vere R. (III, 0)
 †Weedon, Frances (II, 0)
 Weigandt, Harry N. (IV, 87)
 Welkert, Gladys L. (I, 0)
 Weinberg, Bessie (II, 0)
 Welo, Hazel (II, 0)
 Welsh, John B. (VI, 0)
 West, Caroline D. (IV, 0)
 Weyl, Celeste, M. (IV, —)
 Whaley, Opal (II, 0)
 Wheeler, Henry Stevens (IV, 0)
 Wheeler, Maud I. (II, —)
 Whipple, Verna A. (II, 0)
 Whitecomb, Alice J. (II, 0)
 White, Helen Margaret (II, 30)
 White, Milo R. (V, 116½)
 †Whittemore, Lois A. (II, 0)
 †Whittlesey, Charles J. (IV, 0)
 Whyte, Russell I. (III, 88½)
 †Wilder, Wm. F. (III, 101½)
 Wiley, Virgil Brooks (II, 58)
 Willey, Katherine (IV, 18)
 Wilgus, Mildred (VI, 0)
 Willey, Harold B. (II, 21)
 Williams, Ernest P. (III, 161)
 Williams, Helen H. (IV, 30)
 †Williams, John Higgins (IV, 34)
 Williams, Louise E. (IV, 30)
 †Williams, Mathilde D. (II, 8)
 †Williams, Milton Leigh (IV, 0)
 Williford, Imogene (IV, 0)
 †Willis, Benjamin C. (IV, 79)
 Willis, Mrs. Virginia B. (II, 117)
 †Wilson, Agnes W. (II, 0)
 Wilson, Genevieve J. (VI, 18)
 Wilson, Thomas B. (V, 30)
 †Wimmer, Joseph Cope (IV, 164)
 †Winn, Robert H. (VI, 42)
 †Wishart, Malcolm (IV, 69)
 †Wolcott, Jessie M. (II)
 Wolpe, Ethel Dixie (II, 0)
 Wong, Gladstone T. (IV, 18)
 Wood, John Sumner (IV, 0)
 Wood, K. Parrish, Jr. (VI, 0)
 Woolard, Edgar Wm. (III, 70)
- D. C. 8814 5th Street
 N. Y. 8814 5th Street
 N. Y. 1235 Girard Street
 Md. Willard Courts
 D. C. Wardman Park Hotel
 Ind. 1105 O Street
 Ill. 2934 Newark Street
 Ala. 8800 14th Street
 D. C. 4511 15th Street
 Ill. 526 Irving Street
 Miss. 1757 K Street
 Va. Herndon, Va.
 Miss. 221 Florida Avenue
 D. C. 1024 20th Street
 D. C. 205 E. Capitol Street
 Ohio 1824 California Street
 Iowa 1910 K Street
 China 1910 K Street
 Calif. 1736 G Street, N. W.
 D. C. 616 Quebec Place
 Calif. 1107 Clifton Street, N. W.
 Md. Silver Spring, Md.
 D. C. 1341 Columbia Road
 D. C. 1449 Park Road
 Ill. 730 4th Street, S. E.
 Va. 8418 P Street
 Minn. 210 E Street, N. W.
 Md. Chevy Chase, Md.
 Md. Chevy Chase, Md.
 D. C. 2112 10th Street
 D. C. 2112 10th Street
 S. Dak. 1116 Rhode Island Avenue
 D. C. 619½ Park Road
 D. C. 423 2nd Street, S. E.
 Minn. 1104 M Street
 D. C. 715 21st Street
 Va. Alexandria, Va.
 Ill. Monmouth Hotel
 Ind. 9 Iowa Circle
 R. I. House Office Building
 Mich. 1505 Vermont Avenue
 Va. 1712 New Hampshire Avenue
 Mass. 202 Southbrook Courts
 D. C. Congress Heights, D. C.
 Ind. U. S. Patent Office
 Ill. Glen Echo, Md.
 Va. 1520 Lamont Street
 D. C. 2503 14th Street
 N. J. 1523 22nd Street
 Del. 1718 17th Street
 D. C. 1483 Harvard Street
 Ohio 1423 Chapin Street
 Mass. 1840 Vernon Street
 D. C. 1235 Madison Street
 D. C. 8917 McKinley Street
 Ky. 1443 Massachusetts Avenue
 D. C. 8917 McKinley Street
 D. C. 1832 F Street, N. E.
 Miss. 221 East Capitol Street
 Miss. 80 9th Street, S. E.
 Md. 303 Northbrook Courts
 Va. Richmond Hotel
 Ind. 1903 15th Street
 D. C. The Cumberland
 La. Sherman Apartments
 Pa. 3119 Georgia Avenue
 D. C. 20 9th Street, S. E.
 Ill. Y. M. C. A.
 Iowa 2022 North Capitol Street
 D. C. 918 4½ Street
 China 204 Southern Building
 D. C. 4915 13th Street
 Va. 808 L Street, S. E.
 Colo. 2819 Pennsylvania Avenue, N. W.

Wormser, Hazel M. (II, 0)
 Worthington, George B. (IV, 0)
 †Wrenn, Joseph L. (IV, 0)
 †Wright, C. Wayne (VI)
 Wright, Walter Theodore (IV, 0)
 *Yaden, Flora L. (II, 8)
 †Yates, Blanche M. (II —)
 Yates, Fred L. (IV, 0)
 *Young, Edna A. (II, 0)
 *Young, Ellen (II, 0)
 Zanner, Albert W. (VI, 0)
 Zirkle, Vernon B. (II, 9)

Kans. 1307 N Street
 Ala. 19 W Street, N. W.
 D. C. 1716 17th Street
 Ohio 1730 Massachusetts Avenue
 Mass. Calverton Apartments
 Ky. College Park, Md.
 Mont. 1618 O Street
 Okla. 1717 Euclid Street
 Mo. 4 Iowa Circle
 Calif. 55 Channing Street
 D. C. 1608 Longfellow Street
 Va. 416 Third Street

BACHELOR OF SCIENCE IN MEDICINE

Anderson, Aleatha (0)
 Baer, Donald E. (26½)
 *Bell, W. G. (0)
 Brotman, Isidore I. (0)
 Burgin, Walter H. (34)
 Camp, Francis Willson (28)
 Colvin, Henry Lynn (0)
 Corey, Wilbur L. (29)
 Creswell, George W. (48)
 Cunningham, Fred'k B. (6)
 Cushman, Wm. Green (0)
 DeLeon, Pedro V. (0)
 Deuterman, Joel LeRoy (0)
 Diatz, Phillip (37)
 Eanet, Paul (33)
 †Freeland, Fred Bernard (0)
 M. D., 1920, George Washington University

Geier, Frederick A. (16)
 *Gross, Charles Ernest (0)
 *Harding, Sherley M. (0)
 Hottel, Dorothy (0)
 Johnson, Regena Cook (14)
 Ketner, Fred Y. (0)
 Lane Abigail (0)
 Levin, Beatrice H. (0)
 Lewis, Julius E. (0)
 Luber, Samuel E. (0)
 McNitt, H. Arnold H. (34)
 McNitt, H. J. Russell (34)
 *McVey, Pauline M. (0)
 Maiorana, Charles (31)
 Moxness, Bennie A. (22)
 Nathanson, Esther (39)
 Nimetz, Aaron (33)
 Ottman, Millard P. (0)
 Paonessa, Alfred E. (35)
 Parker, Evelyn (18)
 Penke, Isidore A. (42)
 Phillips, Joseph Julius (36)
 Rhama, Harold E. (34)
 Ritchie, William Sult (0)
 Rubino, Anthony P. (30)
 Schutz, Charles A. (22)
 Stephenson, George W. (0)
 Thurber, Mildred E. (16)
 Van Natta, Paul C. (20)
 Venenoso, Fernando O. (28)
 Weinschelbaum, Samuel (42)
 Wiard, George Clark (16)

W. Va. 707 20th Street
 D. C. 1744 Corcoran Street
 Md. 3805 Georgia Avenue
 D. C. 1430 Meridian Place
 D. C. 1209 Emerson Street
 D. C. 2823 27th Street
 D. C. 926 B Street, S. W.
 N. Y. Takoma Park, D. C.
 Md. 1100 Vermont Avenue
 Va. Y. M. C. A.
 D. C. 1121 17th Street
 Va. 1201 H Street, N. W.
 D. C. 654 10th Street
 D. C. 352 I Street, S. W.
 S. Dak. Sibley Hospital

D. C. 728 13th Street
 D. C. 304 Seaton Place, N. E.
 Ohio 2013 C Street
 Md. 1239 Monroe Street, N. E.
 Md. 1420 N Street
 N. C. 2140 N Street
 Mo. 1416 Rhode Island Avenue
 D. C. 1000 34th Street, N. W.
 Va. 813 L Street
 D. C. 731 4th Street, N. W.
 Md. Berwyn, Md.
 Md. Berwyn, Md.
 D. C. 1723 G Street
 N. J. 2017 H Street, N. W.
 N. Dak. 700 20th Street
 Va. 1787 Lanier Place
 D. C. 1544 9th Street
 D. C. 2117 3rd Street, N. E.
 N. J. 732 21st Street, N. W.
 Vt. 317 A Street, N. E.
 D. C. 100 6th Street, S. E.
 D. C. 1233 7th Street
 D. C. 1236 11th Street
 Md. Ritchie, Md.
 N. Y. 1321 Quincy Street
 Md. 1426 M Street
 N. Y. New Plaza Hotel
 N. Y. 925 Massachusetts Avenue
 Mo. Army Medical School
 P. I. 1635 L Street
 N. Y. 1017 12th Street
 Va. 933 New York Avenue

SPECIAL—PRE-MEDICAL

*Adams, Demey H. (0)
 *Allison, Lenore (0)
 Atalla, George G. (0)
 Azula, Juan N. (22)
 Beach, Mary J. (34)

Okla. Y. M. C. A.
 Mo. 1016 17th Street
 Egypt 1106 Connecticut Avenue
 Peru Plaza Apartment
 Fla. 1485 Rhode Island Avenue.
 N. W.

- Brimer, Thomas J. (6)
 †Brotman, Melvin (0)
 †Burns, James E. (25)
 Butler, Arden Jones (19)
 †Calhoun, Edward J. (13)
 Chapman, Katherine (36)
 Colodny, Leo (34)
 Creveling, Cyrus R. (6)
 †Danzig, Louis (0)
 †DeLeon, Louis (0)
 Denison, A. B. (59)
 Dorsey, James A. (6)
 Dubins, Julius (12)
 Egli, Edwin B. (0)
 Friedenberg, Harry (48)
 Gault, Paul Samuel (0)
 †Gingrich, George A. (0)
 Green, Holland H. (15)
 †Hall, Neville G. (0)
 †Hare, Mrs. Lulu I. (34)
 Hixson, Clayton H. (0)
 Howells, Russell W. (10½)
 Hughes, Wm. Henry (30)
 Jansen, Russell John (16)
 Johnson, Don (16)
 L.L. B., Catholic University
 †Johnson, Perry M. (0)
 †Johnson, William V. J. (0)
 Jost, David (74)
 †King, Frank (0)
 †Kirk, Grover C. (0)
 A. B., Temple University; A. M.,
 University of Pennsylvania
 Krause, Edward A. (22)
 Lang, Richard James (16)
 Litteral, Emmett B. (0)
 Lynch, Marcus F. (0)
 McCarthy, John L. (10)
 McClosky, William T. (34)
 †Mahoney, James Leo, Jr. (0)
 †Maxwell, John Edwin (27)
 Mayer, Joseph A. (17)
 Montani, Rocco (60)
 †Muir, Joseph Johnston (0)
 Murray, Raymond W. (0)
 Notes, Bernard (22)
 Ostrom, Hilda Rachel (120)
 Patterson, Homer Scott (39)
 Phillips, Bernhardt (69)
 †Pierce, Ralph N. (16)
 Potter, Harold W. (30)
 †Prenaler, Sidney (0)
 Putnam, Persis (6)
 Quayle, Edgar Elias (22½)
 Quick, Mary Elaine (0)
 Rappaport, Harry M. (0)
 Rea, Courts Davidson (0)
 †Reams, Paul Eugene (0)
 Rench, Robert B. (3)
 Rens, Millard F. (0)
 Riwehun, Meyer (0)
 Roberts, George L. (0)
 Rogers, Sam Lyle, Jr. (23)
 Savage, George P. (29)
 Schafer, William Lewis (26)
 Secunda, Herman (31)
 Seward, Doris Marie (16)
 †Sieber, Mary Grace
 A. B., 1911, Wilson College, Pa.
 Smith, Howard L. (16)
 †Smith, Marcus S. (0)
 Somers, Charles J. (10)
 Spano, Frank (0)
 D. C.
 D. C.
 D. C.
 Tenn.
 D. C.
 Md.
 D. C.
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 P. I.
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 N. Y.
 N. J.
 N. C.
 Ala.
 Va.
 N. Y.
 Vt.
 Pa.
 D. C.
 Pa.
 N. J.
 Italy
 239 9th Street, N. E.
 1426 Meridian Place
 217 13th Street, S. E.
 1234 18th Street
 1201 Girard Street
 Kensington, Md.
 1367-A Massachusetts Avenue,
 S. E.
 511 9th Street, S. W.
 1237 C Street, S. W.
 1010 F Street, N. W.
 1719 G Street, N. W.
 1312 North Carolina Avenue,
 N. E.
 2143 F Street, N. W.
 1749 18th Street, N. W.
 917 6th Street, S. W.
 Naval Medical School, D. C.
 Chatham Courts
 2023 Eye Street, N. W.
 2024 Eye Street, N. W.
 Fontanet Courts
 624 Irving Street
 6703 Georgia Avenue, N. W.
 U. S. Naval Medical School
 1425 Rhode Island Avenue
 Catholic University
 Alexandria, Va.
 1813 M Street
 2934 Vista Street, N. E.
 Terrace Inn
 Y. M. C. A.
 623 4th Street
 712 20th Street
 124 East Capitol Street
 509 3rd Street, N. E.
 1422 U Street
 23 Michigan Avenue, N. E.
 2811 18th Street
 2118 G Street
 531 18th Street
 1439 Girard Street
 200 6th Street, N. E.
 2925 Ordway Street
 3605 New Hampshire Avenue
 2129 P Street
 1238 7th Street
 1808 Kalorama Road
 2120 G Street
 1215 Girard Street
 Takoma Park
 121 Maryland Avenue, N. E.
 Clarendon, Va.
 1117 17th Street
 1821 Delafield Street
 805 E Street, N. E.
 1800 Rhode Island Avenue
 The Alabama
 1411 Harvard Street
 715 21st Street
 6610 Macomb Street
 U. S. Naval Medical School
 487 Wilkes Street
 1047 12th Street
 1341 A Street
 1765 P Street
 1516 Kearney Street, N. E.
 41 T Street, N. W.
 694 Montgomery Street
 733 21st Street

Stretch, James E. (19)	Conn.	1829 19th Street
Sursel, Francis Xavier (6)	D. C.	1223 H Street, N. E.
Sursel, Xavier A. R. (6)	D. C.	1602 7th Street
Swedenborg, Edward A. (46)	Idaho	1731 Q Street
Talavera, Damase, Jr. (9)	P. Rico	1927 14th Street
Thomas, William Raymond (82)	D. C.	2505 14th Street
Toscano, George (6)	N. J.	732 21st Street
Villanneva, Paterno (8)	P. I.	Providence Hospital
Walker, Ferris (10 1/2)	D. C.	2545 17th Street
*Watson, Lewis Randolph (28)	Md.	866 Hammond Court
†Weeks, Norman E. (11)	D. C.	8200 12th Street, N. E.

SPECIAL STUDENTS

*Aaronson, Ruth		1106 Fairmont Street
Abbott, Dorothy Meredith	D. C.	1706 Oregon Avenue
Adams, Lury	Mo.	E-F Building, Gov't Hotels
*Adams, Malinda A.	D. C.	1218 Decatur Street, N. W.
Allen, Mary Elizabeth	Mass.	1104 M Street, N. W.
*Allison, Gladys B.	D. C.	836 Lexington Place
Almand, Rosebud Overton	D. C.	2120 Connecticut Avenue
Altrup, Felix William	Va.	61 R Street, N. W.
A. B., Roanoke College		
†Anderson, Arthur Delp	D. C.	319 F Street, N. E.
Anderson, Frances M.	Ill.	1117 Fifth Street, N. W.
†Anderson, Thomas H.	N. C.	821 E Street, N. E.
*Applegate, Carolyn	Ind.	1215 E. Capitol Street
*Arndt, Margaret Mittelschmidt	Mass.	Hotel Gordon
A. B., Smith College		
*Aronstein, Jennie Goodman	D. C.	1622 Seventh Street, N. W.
*Astle, Hildred I.	N. H.	2006 G Street, N. W.
Austin, Sadie M.	Md.	122 Willow Avenue, Takoma Park, Md.
*Axtell, Decatur B.	Mo.	732 21st Street, N. W.
A. B., University of Texas		
Bagorad, Nina		Washington Asylum Hospital
†Bailey, Ida M.	D. C.	627 Quincy Street, N. W.
†Bailey, Vera	D. C.	216 8th Street, S. W.
*Ball, Alice M.		3016 Dumbarton Avenue
Bandl, Ernest	Switzerland	Legation of Switzerland
†Baptista, Dorothy M.	D. C.	813 5th Street, S. E.
*Baragwanath, Genevieve		The Balfour
*Barber, Louise	Miss.	2816 13th Street, N. W.
*Bargeron, Carlisle	Ga.	2419 14th Street, N. W.
*Barndollar, Elizabeth Erwin	D. C.	1801 K Street, N. W.
†Barner, Emma B.	Pa.	Government Hotels
Barnes, Edith	D. C.	142 11th Street, N. E.
*Barndollar, Nannie C.		1801 K Street, N. W.
Barnes, Mrs. Florence Hills	D. C.	1423 Chapin Street
Beach, L. Madge	Ohio	767 26th Street, N. W.
†Beck, Mrs. R. J.		The Ventosa
*Beckham, Eleanor Raphael	D. C.	2130 Wyoming Avenue
Berry, Mary	Ohio	3329 11th Street, N. W.
†Behne, Joe C.	Okla.	1786 G Street
*Belda, Francisco M.	P. I.	1704 G Street, N. W.
Bell, Florence Colfax	N. Y.	2610 Woodley Place
*Bell, Virginia Leo	Va.	1393 15th Street
*Bell, Mildred	Md.	Department of Labor
A. B., 1917 Goucher College		
*Benham, Mary	Ill.	Government Hotels
Benner, Robert W.	D. C.	611 Massachusetts Avenue, N. E.
Bennett, Martha D.	D. C.	1512 Allison Street
Bennett, Ella Mildred	Wis.	1941 1st Street
A. B., 1920, George Washington University		
Bergner, Gretchen A.	D. C.	1432 F Street, N. E.
Bier, Mary E.	Md.	649 Massachusetts Avenue, N. E.
*Blind, Kathleen	Va.	1417 Belmont Street
*Bliss, Lucy S.	D. C.	1115 Monroe Street
*Bliss, Mrs. Sara K.	D. C.	1220 Belmont Street
Blaunt, Ella Allen	D. C.	826 H Street, S. W.
Boltman, Ruby	D. C.	Takoma Park, D. C.
*Bonnette, Eva M.	Okla.	618 O Street, N. W.

Booth, Mrs. Lula Ferris A. B., 1917, Washington Mission- ary College A. M., 1919, George Washington University	D. C.	1428 Fairmont Street
*Boudinot, Annegret Mary C.	Kans.	1428 R Street
*Bowen, Winnifred	Kans.	American Red Cross
*Brndford, Erin	Tenn.	1432 Clifton Street, N. W.
*Brennan, Manolah E.	Ill.	Harrington Hotel
Bright, Daisy	Mass.	1818 H Street
*Bromwell, Mildred W.	Ill.	1815 Q Street
Brook, Helen C.	N. J.	2840 27th Street
Brooks, Matilda M.	Pa.	3809 Yuma Street
*Brown, Charles W.	Minn.	3519 Lowell Street
*Brown, Mabel A.	Ill.	1200 18th Street
*Brown, Margaret A.	N. Y.	Government Hotels
Brown, Ruth A. B., Cornell University	Tenn.	1444 W Street
*Buchheit, Howard Allen A. B., Franklin and Marshall College	Pa.	2717 Ontario Road
Buechele, Emma A.	Iowa	U. S. Patent Office
†Buffum, David B. A. B., 1914, Harvard University	Conn.	Chevy Chase, Md.
†Burchard, Reo A. B., Austin College	Texas	1633 Q Street
*Burnley, Nancy Lee	Va.	1723 Willard Street
*Burton, Miss Betty	Ill.	3131 Mt. Pleasant Street
†Burton, Mrs. Henrietta K. B. S. Columbia University; A. M., University of Wyoming, 1929	D. C.	1725 17th Street
Butler, Mary J.	Ireland	Government Hotels
*Calderson, Mrs. Gladys C.	Mich.	624 H Street
Caldwell, Millard L.	Va.	Clarendon, Va.
*Callaghan, Jennie E.	Maine	Government Hotels
*Callahan, Vincent F.	D. C.	1729 North Capitol Street
Campbell, Jean Tompson	D. C.	301 8th Street, N. E.
*Carlson, Ruth M.	N. Y.	1929 Calvert Street
*Carlson, Vivian	N. Y.	1929 Calvert Street
Carrick, Carl	Mich.	428 8th Street, S. W.
Carter, Constance Lee	D. C.	1420 Eye Street
†Case, Clara Marie	Ill.	Government Hotels
Cassidy, Frances M.	Ind.	1426 M Street
†Cavin, Emma Anne	Ind.	1502 21st Street
Cheek, Mildred	D. C.	201 E Street, S. E.
Cheseldine, W. M. C.	D. C.	Interstate Commerce Commis- sion
*Church, Nathan D.	Pa.	4520 14th Street
Clark, Ethel L.	Iowa	1426 Rhode Island Avenue
*Clawson, Grace G.	Ill.	Riverdale, Md.
Coburn, Mary Grace	N. Y.	1824 Belmont Road
*Cocks, Lucy E.	N. Y.	1204 Girard Street
*Cole, Mrs. Mary J.	Pa.	Tudor Hall
Coleman, Margaret L. A. B., Mt. Holyoke College	N. Y.	4127 Harrison Street
Collier, Pearl A. B., Winthrop College	S. C.	1786 Church Street
†Connolly, Elizabeth M.	N. H.	1415 Chapin Street
*Connolly, Charles R. M.	Mass.	713 21st Street
†Connolly, Harold G.	Mass.	2934 Upton Street
*Connor, H. Perfield	N. Y.	1402 Emerson Street
*Conway, Ella B.	Md.	National Cathedral School
*Cooksey, Blanche E.	D. C.	1311 Euclid Street
*Cooper, Harvey J. A. B., Syracuse University	N. Y.	2027 Q Street
Cooper, Joseph	D. C.	2226 16th Street
Courtney, Francis X.	N. Y.	St. Elizabeth Hospital
*Couture, Adelaide B.	N. H.	1455 Calvert Street
Cowling, Harriet M.	Ill.	912 19th Street
†Cowell, Catherine M.	D. C.	1816 Park Road
Cox, (Mrs.) Carrie M.	D. C.	Takoma Park, D. C.
Cramer, Alma H.	D. C.	2038 1st Street
Cramer, Iverna L.	Ind.	2038 1st Street
*Craney, Mary B.	Calif.	2601 Mozart Place
†Crawford, J. Ceall	Mo.	211 4th Street, S. E.

Crocker, William M.
 *Gross, Mersey Alma
 *Crowe, Joseph N.
 Crutchley, Harry C.
 Culbertson, Marie E.
 Culp, Ruby L.
 Cuzzart, Belva
 †Dabney, Katherine M.
 Dake, Merton F.
 Daly, Margaret A.
 *Danforth, Louisa A.
 *Daniel, Julia Irene
 A. B., 1920, George Washington
 University
 *Daub, Elsie W.
 *Davis, Annette
 Davis, Dabney C. T.
 *Davis, Margaret
 Davis, Mary E.
 Davis, May P.
 Davis, Mazie E.
 *Deckler, Vera I.
 Deem, Mary
 *Deetz, Charles Henry
 Deibler, David H.
 *Devlin, Arthur J.
 †Diner, Irene C.
 A. B., Hunter College, 1917;
 A. M., Columbia University,
 1918; Ph. D., New York Uni-
 versity, 1920
 †Disque, William A.
 Dittes, Frieda E.
 Dixon, Laura M.
 Dobbins, Martha
 A. B., Grinnell College; A. M.,
 University of California
 Dobbins, Ralph S.
 A. B., Franklin College
 Dodd, Atta E.
 Dodd, Mary R.
 Donaldson, Miss Frieda S.
 *Donovanik, Tabb
 Dondero, Albert H.
 Donnelly, Walter J.
 Doyle, Donald A.
 *Doyle, Julia S.
 *Drummond, Pearl L.
 *Dunne, Mrs. Amy C.
 Dunne, Eleanor C.
 *DuPre, David Louis
 *Dworkin, Dora L.
 Dyer, Charles F.
 *Earle, Mrs. Dorothy B.
 Eberle, Katherine S.
 Earnshaw, William I.
 *Eaton, Naomi
 Edlington, Wallace D.
 A. B., 1915, Gallaudet College
 *Edmonds, Ralph M.
 *Eklund, Anna P.
 *Ellason, Mary E.
 †Ellerbrook, Charlotte
 Elmore, (Mrs.) Mary D.
 *England, Daniel C.
 *Enriquez, Charly M.
 *Erickson, Alfred H. O.
 *Erickson, A. Malinda
 Echer, Julia M.
 †Evans, Dove
 *Evans, Harriet McNair
 †Evans, Lena
 *Evans, Norma B.
 *Fanshull, Jack Harrison
 Farnam, E. Jean

D. C. Congress Hall Hotel
 Mass. 1489 Newton Street
 D. C. 1825 Park Road
 Md. Forrestville, Md.
 D. C. 2125 S Street
 Okla. 1843 Park Road
 Ind. 1740 K Street
 D. C. 1804 G Street
 Va. Cherrydale, Va.
 Wis. 1722 Massachusetts Avenue
 D. C. 2274 Mt. View Place, S. E.
 D. C. 312 Randolph Street

 Pa. 51 Bryant Street
 Ga. 3464 Macomb Street
 Va. 1475 Park Road
 D. C. 1842 Columbia Road
 N. C. 204 Maryland Avenue, N. E.
 Va. 128 A Street, N. E.
 Ind. 1819 G Street
 D. C. 1209 Girard Street
 Miss. Kendall Green
 D. C. 2504 Cliffbourne Place
 Md. Chevy Chase, Md.
 D. C. 2222 Nichols Avenue, S. E.
 N. Y. 1815 Vernon Street, N. W.

 Ky. Congress Hall
 D. C. 616 Kenyon Street
 N. Dak. 1104 M Street
 Iowa 1755 Church Street

 D. C. 122 Rhode Island Avenue

 D. C. 1326 Irving Street
 Mass. 214 E. Capitol Street
 Pa. 218 7th Street, S. W.
 Siam Siamese Legation
 Mich. 310 Machinist Building
 Conn. 2512 17th Street
 D. C. 3516 Connecticut Avenue
 D. C. The Hadleigh
 Texas Bureau of Plant Industry
 D. C. 1801 Phelps Place
 D. C. 1801 Phelps Place
 D. C. 4462 Conduit Road
 N. Y. 1821 8th Street
 D. C. 116 V Street
 Nebr. 1835 15th Street
 D. C. 312 C Street, S. E.
 D. C. 320 8th Street, N. E.
 Mo. 620 The Chastleton
 D. C. 428 11th Street, N. W.

 P. I. 1804 Jackson Street, N. E.
 N. Y. 1320 10th Street
 D. C. 1712 17th Street
 D. C. 1917 Rhode Island Avenue
 Md. Bethesda, Md.
 Calif. 1320 New York Avenue
 Ill. 1420 Clifton Street
 D. C. 1114 Monroe Street
 D. C. 1114 Monroe Street
 Ariz. 1412 13th Street
 Ark. Government Hotels
 Va. 1725 Corcoran Street
 Del. Richmond Hotel
 N. Y. 1234 Massachusetts Avenue
 D. C. 1943 Calvert Street, N. W.
 Mich. 1809 17th Street, N. W.

*Farlee, Helen May	D. C.	639 Irving Street
Farrell, Agnes M.	D. C.	1424 Clifton Street
Fath, Ersel M.	D. C.	1425 Chapin Street
*Fettis, Miriam W.	D. C.	1669 Columbia Road
*Finnegan, Rose E.	N. J.	1405 L Street, N. W.
Flanche, Frances Gertrude	N. Y.	623 Maryland Avenue, N. E.
†Fleaharty, Margaret B.	D. C.	1407 Delafield Place
*Foley, Charlotta	Md.	1722 Massachusetts Avenue, N. W.
*Foley, Francis Edward	D. C.	1310 Eye Street, N. W.
*Foster, Harry D.	Ohio	22 Crafton Street, Chevy Chase
*Fox, James C.	D. C.	Metropolitan Club
Fraker, Ada Ellen	Tenn.	1124 12th Street
†Freeman, Dorothy	Ill.	1701 K Street, N. W.
*Frost, Geraldine R.	D. C.	Chevy Chase, D. C.
*Frye, Ina Lee	Va.	1812 N Street, N. W.
Fulton, Constance	Pa.	1812 N Street, N. W.
Gahagan, William Knight	N. Y.	1607 East Capitol Street
*Garber, Sara E.	D. C.	321 5th Street, S. E.
*Gard, Robert Gibbins	D. C.	Fort Myer, Va.
Graduate, U. S. Military Academy		
Gates, Isabel Likens	D. C.	2735 Ontario Road
Gault, Anna Caroline	N. Y.	508 5th Street
*Gerber, Julia	N. Y.	Government Hotels
Gervais, Florence Helena	D. C.	715 Monroe Street, N. E.
Giegele, Albert A.	Iowa	1526 O Street
†Gilliss, Myrtle	Md.	808 F Street, N. W.
*Giltrud, May Behrnadette	N. Dak.	3409 Mt. Pleasant Street
Gingrich, Elizabeth B.	Pa.	1502 21st Street, N. W.
Ginney, Mary Ella	Kans.	1110 M Street
Glass, John Duell	Kans.	700 10th Street, N. E.
†Goddard, Jennie Clayton	S. C.	2119 O Street, N. W.
*Goehring, Camilla	Nebr.	1635 14th Street, N. W.
Goldstein, Alfred	D. C.	633 D Street, N. W.
†Goldstein, Allan A.	Vt.	1658 Euclid Street, N. W.
*Goodman, Pearl	N. Y.	1222 Randolph Street, N. W.
*Grammer, Elizabeth	Va.	1440 M Street
Grant, A. B.	Ill.	The Portner
A. B., University of Illinois		
†Graves, Josephine	Ind.	Government Hotels
Gray, Agnes A.	Mo.	2106 Pennsylvania Avenue, N. W.
Gray, Beattie Mae	Mich.	766 A Street, N. E.
Green, Charles T.	Pa.	East Falls Church, Va.
Green, M. Josephine	Ill.	1864 Ingleside Terrace
†Greene, Aldie R.	Mich.	507 A Street, S. E.
†Greene, William M.	Va.	1600 Rhode Island Avenue, N. W.
*Grey, Mrs. Mabel Wilson	N. Y.	1230 Massachusetts Avenue, N. W.
Griffith, Olin N.	D. C.	2114 Connecticut Avenue
*Griffith, Hazel Elizabeth	D. C.	2114 Connecticut Avenue
Guanella, Martina	Iowa	1305 10th Street, N. W.
Quest, William Henry	S. C.	612 3rd Street
*Hagerman, Annalee	D. C.	1814 14th Street, N. W.
Hamelin, Grace Cecilia	Mass.	1495 Newton Street
*Hampton, Jessie M.	Va.	726 17th Street, N. W.
Hane, Grace Elita	D. C.	House of Representatives
Hansen, Dora	Minn.	1925 G Street
*Happer, Lydia G.	D. C.	2800 Connecticut Avenue
Harkins, Beattie E.	Kans.	1104 M Street, N. W.
Harnsberger, Reynolds T.	Va.	Roadlyn, Va.
*Harper, Edith M.	Ill.	Government Hotels
Harris, Pauline Elizabeth	W. Va.	2306 1st Street
*Harris, Rose R.	D. C.	4005 14th Street, N. W.
*Harrison, Alivia Wilson	Ky.	1261 Fairmont Street, N. W.
†Harter, Iola Jane	Pa.	4800 Arkansas Avenue
*Hausner, Maude	N. Y.	2022 F Street, N. W.
*Hawley, Helen M.	D. C.	2600 Ordway Street, N. W.
Hay, Mary M.	Conn.	Government Hotels
Hayes, James Harvey	D. C.	2406 13th Street, N. W.
*Hazen, Mary C.	D. C.	2844 27th Street, N. W.
Hearin, Jamie Holcombe	Ala.	1901 Wyoming Avenue
†Hell, Elizabeth	N. Y.	903 B Street, N. E.

*Kraiss, Dorothea	Pa.	651 K Street, N. E.
*Kroh, Melissa Jane	Pa.	1350 Pennsylvania Avenue, S. E.
Kroll, Agnes B.	Mass.	1414 16th Street, N. W.
*Krucoff, Barney	D. C.	3111 11th Street, N. W.
*Kuhns, Bertha L.	Ohio	1423 Clifton Street
†Kurvinen, Florence	Minn.	1803 Calvert Street, N. W.
Kuschke, Lillian B.	Texas	1417 Crittenden Street, N. W.
*Kyle, Fern D.	Va.	1804 Park Road, N. W.
Lacy, Katharine C.	D. C.	2109 F Street, N. W.
†Lange, Edwin	D. C.	1116 Girard Street
Larrain, Obel R.	D. C.	Peruvian Embassy
†Latham, Helen Constantin	Va.	1401 Girard Street
Latham, Mary Elma	D. C.	471 H Street, N. W.
Latimer, Margaret E.	Md.	U. S. Geological Survey
*Laverne, Moses L.	D. C.	1123 18th Street, N. W.
*Laserow, Frances	D. C.	627 4½ Street, S. W.
*Leekie, Jeannette K.	D. C.	1345 Harvard Street, N. W.
†Leggett, Florence M.	Md.	Chevy Chase, Md.
†Leiby, Earl G.	Pa.	1736 F Street, N. W.
*Lennon, Jessie M.	Pa.	The Toronto
Leonard, Lewis T.	D. C.	520 G Street, N. E.
B. S., 1914, George Washington University		
*Leonard, Rebecca C.	Md.	2204 One Street, N. W.
*Leptfew, Bessie	Va.	Braddock Heights, Va.
†Lesser, Moses A.	Mass.	925 N Street, N. W.
†Lewis, Catherine DeMille	N. Y.	1333 L Street, N. W.
Lewis, Edgar E., Jr.	N. J.	4102 Illinois Avenue
*Lewis, H. LeRoy	Ky.	1406 H Street, N. W.
*Lindberg, Julia A.	Minn.	918 M Street, N. W.
†Lin, Russell M. C.	China	2011 Park Road
*Lin, Yintro	D. C.	2419 Massachusetts Avenue
Loeke, Vernie M.	N. Y.	Clarendon, Va.
Logsdon, Myra	Mo.	2030 G Street, N. W.
Lohmann, Blanche	D. C.	429 4th Street, N. E.
*Louden, Mary H.	Va.	1328 North Capitol Street
Love, Katherine U.	D. C.	2748 McKinley Street
Lovell, Ellen	Tenn.	1824 H Street, N. W.
Lynch, H. H.	D. C.	614 18th Street, N. W.
*Lytle, W. Orland	Mo.	Bureau of Standards
McAlester, Raymond Greyson	D. C.	219 9th Street, N. E.
McAndrew, Joseph Blaine	Md.	1715 G Street, N. W.
McCabe, Jane	Va.	1758 Corcoran Street
McCarthy, William Anthony	Va.	Cherrydale, Va.
*McCarty, Oneta	Wash.	1430 Park Road
†McClelland, Esther	Kans.	217 Rock Creek Church Road
*McClurg, Blanche	D. C.	1821 18th Street, N. W.
*McCormick, Glenn Elmer	Oreg.	9 H Street, N. W.
†McCulloch, Mrs. Kate S.	D. C.	The Hadleigh Apartments
*McDaniel, Paul I.	Md.	St. Elizabeth Hospital
McDonald, Harriet	N. Y.	1329 I Street
McDougle, Edith A.	D. C.	228 B Street, N. E.
*McEvoy, William J., Jr.	D. C.	633 H Street
*McGovern, Mary L.	D. C.	Chatham Courts
McGovern, Milton	D. C.	Chatham Courts
McInerney, Vincent J.	D. C.	1225 Vermont Avenue
McKay, Susie E.	Minn.	1824 H Street
McKeever, Ruth I.	D. C.	1130 6th Street, N. E.
McKenna, Thomas J.	N. Y.	623 4th Street
*McKnight, Mary Pearson	D. C.	The Woodward
*McNeal, Florence	Ohio	1347 Irving Street
McNulty, Anna T.	Pa.	1928 S Street, N. W.
*MacDaniel, Kate	Ky.	2708 Ontario Road
MacDaniel, Rebekah	Ohio	1132 Girard Street
†Madeira, Elizabeth B.	Ohio	1467 Monroe Street
Magee, Mary Elizabeth	Mass.	701 10th Street
†Magruder, Natalie		The Connecticut
*Main, William Clark	D. C.	20 Adams Street
*Manchester, Anne C.	Pa.	The Ethelhurst
Mangum, James R.	Ga.	2011 F Street
Marlowe, Mabel	Okla.	519 A Street, S. E.
*Martinson, Ruth	Ky.	Children's Bureau
†Marolino, Ora	Pa.	800 East Capitol Street
Martin, Ethel M.	N. Dak.	Government Hotels

- Martinez, A. Rodolfo
 *Mattson, Josephine
 *May, Caroline
 May, Henrietta
 †May, Lettie
 *Mend, Florence I.
 *Meehan, Carmel
 *Meinick, Sadie S.
 †Melvin, Mary E.
 †Menzel, Margaret L. T.
 *Meriwether, Yancey
 Merritt, George E.
 Meyer, Emma
 Middlebrook, Cecelia A.
 *Miller, Hattie
 *Miller, Lura
 Miller, Richard Hagan
 Miller, Vesta E.

 *Miller, William T.
 Milla, Margaret M.
 *Milovich, Elizabeth Viola
 Minor, John Gilbert
 †Mitchell, Ada M.
 Mix, Anna E.
 Phar. D., George Washington University
 *Monts, Cora Floy
 †Montgomery, Jimmie E.
 *Montgomery, Mrs. Pearl R.
 *Montgomery, Ray Calhoun
 *Monts, Verna K.
 Moore, Bentrice T.
 †Moore, Beulah G.
 *Moore, Metta L.
 Moore, Mildred J.
 A. B., George Washington University
 *Morgan, Elsie P.
 *Morgan, Ralph E.
 Morgan, Vinnie
 Morishima, Morito
 Morrow, Mrs. Nell
 Mount, Pearl
 *Muller, Ruth E.
 *Mundy, Rosaline E.
 *Munford, G. Taylor
 *Murphy, Agnes E.
 Murphy, Joan Catherine
 Namkoong, David Y.
 Nelson, LeRoy W.
 Newman, Agnes M., Mrs.
 ?Newman, Laurance G.
 Newton, Frances M.
 Nicholson, Laura M.
 Niemeyer, Ernestine H.
 Niemeyer, Herbert F.
 Nilsson, Paul J.
 Norris, Dorothy E.
 O'Callaghan, John
 O'Connor, Miss Lillie
 O'Donnell, A. Daniel
 Oldfield, A. Isabel
 Oliver, Estelle I.
 *Olsen, Florence E., Mrs.
 *O'Neill, Eugene
 *Owens, William Hamilton
 *Palmer, Florence G.
 Palmer, Mary L.
 Parker, Albert B.
 Parker, Clarence W.
 Parlier, Ruth
 *Parmenter, M. Louise
 *Parsons, David A.
 *Patterson, Elsie
- Mexico 1913 G Street
 Mich. 1016 17th Street
 Ill. 716 16th Street
 D. C. 1128 New Hampshire Avenue
 Ohio 1424 R Street
 D. C. 927 17th Street
 D. C. 1335 Oak Street
 Pa. 2109 18th Street
 VI. 1717 G Street
 D. C. 2051 Tilden Street
 D. C. 25 Iowa Circle
 D. C. 4411 39th Street
 N. Y. 1104 M Street
 Texas Government Hotels
 Texas 1343 O Street
 Ill. 429 Newton Place
 R. I. U. S. Naval Medical School
 D. C. 919 Massachusetts Avenue, N. E.
 Md. 178 Uhland Terrace, N. E.
 D. C. 305 1st Street, S. E.
 D. C. 802 Eye Street
 Ky. 2215 H Street
 Va. 1750 P Street
 Md. 113 Maryland Avenue, N. E.

 Ohio 3900 Georgia Avenue
 D. C. 807 Jefferson Street
 D. C. 720 Otis Place
 D. C. 720 Otis Place
 N. Y. 1520 P Street
 D. C. 1741 T Street
 D. C. 1213 25th Street
 Nebr. 320 Tennessee Avenue, N. E.
 D. C. 111 Tennessee Avenue, N. E.

 D. C. 73 Bryant Street
 Pa. 721 Butternut Street
 Ill. 1813 K Street
 Japan 1810 N Street
 Nev. The Hadleigh
 Ala. 1224 18th Street
 Calif. 1539 18th Street
 N. J. The Highlands
 D. C. 1965 Biltmore Street
 VI. 4321 14th Street
 VI. 1228 Irving Street, N. W.
 Korea 905 Continental Trust Bldg.
 Nebr. 520 20th Street
 Va. 5617 New Hampshire Avenue
 Mass. 5617 New Hampshire Avenue
 Ga. 1730 Newton Street
 D. C. 1717 17th Street
 D. C. 1709 Lawrence Street, N. E.
 D. C. 1708 Lawrence Street, N. E.
 N. Y. Takoma Park
 N. Y. 1730 Columbia Road
 Texas 310 East Capitol Street
 N. Y. 1121 10th Street
 D. C. 317 W Street, N. E.
 D. C. The Dredgen
 Texas 605 P Street
 Mich. 694 Rock Creek Church Road
 N. Y. 1500 New Hampshire Avenue
 D. C. Cleveland Park, D. C.
 D. C. 612 Upshur Street
 D. C. 1725 I Street
 D. C. 1720 Willard Street
 D. C. 923 N Street
 Ill. 1810 G Street
 Mass. 2029 1st Street
 Md. North Chevy Chase, Md.
 D. C. 314 Clifton Terrace West

Patterson, Esther	D. C.	628 A Street, N. E.
*Patterson, Myrtle R.	Md.	628 A Street, N. E.
*Patton, S. Palmer	Oreg.	472 Pennsylvania Avenue
*Payne, Ardell	D. C.	2426 Georgia Avenue
†Pense, Helen	N. C.	121 8rd Street, N. E.
Peckham, Winifred	Pa.	Government Hotels
*Peede, Dallie E.	N. C.	1822 L Street
Peirce, Lottie M.	D. C.	Government Hotels
*Pendergast, George C.	Mass.	1742 S Street
*Pennington, William D. H.	D. C.	Congress Heights, D. C.
Perkins, Manlius M.	Vt.	608 G Street, S. W.
†Peter, Fannie I.	D. C.	1444 W Street
Peterson, Cornelius John	D. C.	2124 P Street
Pfoser, Elsie	Idaho	Government Hotels
Phelps, Annabelle Wingate	D. C.	2641 Garfield Street
*Phillips, Miss Clistie M.	D. C.	Anacostia, D. C.
Phillips, Marie	D. C.	3922 13th Street
†Phillips, Ruth	W. Va.	1233 Vermont Avenue
Phillips, Ruth R.	D. C.	3922 13th Street
*Phillips, Sammie	D. C.	313 Harvard Street
*Pierce, Edith Margaret	D. C.	1850 Oak Street
†Pilliod, Rosine	Ohio	1722 Massachusetts Avenue
*Ponce, Ramon L.	P. I.	1529 I Street
Poppleton, Hilda E.	N. Y.	1108 22nd Street
Porter, Etta C.	N. Y.	2023 G Street, N. W.
†Porter, Mrs. Sanford L.	D. C.	Franklin Square Hotel
*Post, Mrs. Marie Eleanor	Ill.	1740 Euclid Street
Postley, Olive C.	D. C.	1367 Irving Street
†Potts, J. Bernard	D. C.	534 20th Street
Prender, Elizabeth	D. C.	627 F Street, N. E.
*Prendergast Bertha M.	D. C.	1504 12th Street
Price, L. Lucile	Ind.	4207 New Hampshire Avenue
Price, Margaret Lee	D. C.	Columbia Hospital
Price, Mary Elizabeth	Md.	Riverdale, Md.
*Purdy, Mary E.	Wis.	641 5th Street, N. E.
*Purtell, Alice Irene	Ill.	1719 Eye Street
*Quigley, Helen C.	D. C.	34th and Highland Avenue
*Quirk, Ellen M.	D. C.	1322 I Street
Ramsey, Dora	Ill.	Chevy Chase, D. C.
Randolph, Clara Fitz	Ill.	1012 22nd Street
†Rawlings, Maudless Mrs.	D. C.	1747 Church Street
Rayes, Bentrax	D. C.	1326 Harvard Street
*Reavy, Charlotte F.	Ill.	Monmouth Hotel
Reed, Frank S.	D. C.	1240 11th Street, N. W.
*Reeves, Mildred E.	D. C.	820 Varnum Street
*Rice, Gladys	D. C.	2153 Mt. Pleasant Street
*Rice, Helen M.	Mich.	1417 Crittenden Street
†Richardson, Elsie Browning	D. C.	1823 Lamont Street
Richardson, Frank W.	D. C.	613 12th Street, N. E.
†Richmond, Adolph I.	Va.	Fort Myer Heights, Va.
Ridenour, Nelle	Iowa	3200 19th Street
*Riley, Mary Frances	D. C.	144 11th Street, N. E.
*Ritchie, Marie	Pa.	1727 P Street
*Robbins, Florence P.	Russia	2425 Holmead Place
*Robinson, Dorothy	D. C.	Cleveland Park
Rogers, Herbert O.	Colo.	1821 Belmont Street
Rogers, Mary	Md.	Hyattsville, Md.
Ronaldson, Ethel	D. C.	2125 S Street
†Rose, Virginia M.	D. C.	1215 O Street
Rorer, Julia H.	D. C.	1800 K Street
†Rowe, James M.	D. C.	1461 Columbia Road
*Ryan, Annie T.	D. C.	1213 Euclid Street
Ryan, Eunice T.	D. C.	713 10th Street
*St. John, Capt. Adrian	D. C.	1625 16th Street
*Salls, Hazel M.	Vt.	1914 Pennsylvania Avenue
Sanborn, Rebekah	D. C.	1000 Douglas Street, N. E.
A. B., 1919, George Washington University		
†Sargent, Alice M.	Mass.	1796 Willard Street
Sargent, Annie M.	D. C.	1740 16th Street
Satterwhite, Fern L.	Md.	145 11th Street, N. E.
*Scheirer, George A.	D. C.	1903 Biltmore Street
Schladt Phillip B.	D. C.	Potomac Heights
†Schrel, John Henry	D. C.	220 8th Street, S. E.
*Schutt, Marie E.	Va.	The Plaza

- †Schwartz, Morris S.
 *Schwartz, Mrs. Annie J.
 *Segal, Kathryn
 Selden, E. Julia
 *Shafer, William
 *Shannon, Raymond C.
 Sharfton, James T. B.
 *Shea, Fred Dennis
 †Shenman, Janet C.
 Sheldon, Harold P.
 *†Shepard, Alice M.
 Shepherd, Marguerite
 †Sheppard, Marie
 Sherwood Winifred
 Shibatsuj, Masaharu
- Shipley, Edith A.
 *Simonton, M. Estella
 *Simpson, Grace
 Simrall, Sarah A.
 †Sloan, Sophronia J.
 Sloane, Mrs. Anne B.
 Smend, Llewellyn W.
 *Smith, Gladys E.
 *Smith, Harry L., Jr.
 Smith, Isabelle G.
 *Smith, J. Virginia
 *Smith, Martha L.
 Smith Mary P.
 Smith, Rena B.
 *Smith, Thora G.
 *Smith, Uhl M.
 Sokolove, Marian
 *Sparks, Helen
 *Spaulding, Thomas W.
 *Spayde, Ruth Jane
 Spofford, Harriett C.
 *Spoonemore, Isabelle M.
 *Stacks, Mrs. Alberta A.
 Stahl, Mrs. John J.
 Steele, Mrs. Hester R.
 *Steele, Kathryn E.
 Steerman, Blanche
 *Steger, Mary Evelyn
 A. B. and A. M., George Wash-
 ington University
 *Stein, Hattie
 *Sterling, Miriam Edna
 Stevenson, Arthur E.
 B. S., 1912 University of Kansas
 Stoddard, Blanche H.
 Stoll, Amy
 Stonebraker, Florence E.
 *Stratbucker, Louise
 Stuard, Mabel E.
 Stutz, Rose
 Sullivan, Florence
 *Suverkrop, Mrs. L. A.
 *Swann, Dora C.
 *Sweet, Harriet M.
 Tabor, Blanche
 A. B., Meredith College
 *Tashoff, Faye
 Tapley, Gladys
 Tashof, Ivan P.
 B. M. Columbia University; LL.
 B., University of Kentucky;
 LL. M., George Washington
 University
 *Thidabeau Hazel
 *Thomas, Anna Pearl
 *Thomas, Genevieve E.
 †Thomas, Margaret R.
 Thomas, Rachel
- D. C. McLachlen Building
 Texas Plaza Apartment
 Pa. 905 23rd Street
 S. C. 1200 18th Street
 N. Y. 1430 V Street
 D. C. 818 17th Street
 S. C. 1723 19th Street
 S. Dak. 1842 Calvert Street
 D. C. 1838 Harvard Street
 D. C. 1621 S Street
 N. H. 1410 11th Street
 Ark. 2011 F Street
 Ohio. 1842 27th Street
 Colo. Wardman Park Inn
 Japan 1310 N Street, Japanese Em-
 bassy
 D. C. 1914 G Street
 Va. Arlington, Va.
 D. C. 1483 Meridian Street
 Ky. Government Hotels
 Ky. 1231 Harvard Street
 Sweden Burlington Hotel
 Ind. 1628 Hobard Street
 Tenn. 310 Indiana Avenue
 Md. Riverdale, Md.
 D. C. Portland Hotel
 Pa. 428 10th Street, N. E.
 Ga. 1901 Wyoming Avenue
 D. C. 1313 Clifton Street
 Masa. 1922 H Street
 N. H. 2029 1st Street
 Calif. 4613 Georgia Avenue
 D. C. 33 Q Street
 Nebr. Falls Church, Va.
 Calif. 1845 Euclid Street
 D. C. 4710 15th Street
 Va. War Department
 Masa. Government Hotels
 Va. 3800 14th Street
 Mich. The New Berne Apartment
 D. C. 1430 W Street
 D. C. 616 7th Street, N. E.
 D. C. 2010 Woodley Place
 D. C. Gunston Hall
- D. C. Concord Apartments
 Md. 1732 O Street
 Kans. 1739 H Street
- D. C. 2721 18th Street
 N. J. 1639 Hobard Street
 D. C. 3438 Oakwood Terrace
 Nebr. 1837 H Street
 D. C. 2118 I Street
 D. C. 1625 Swann Street
 Pa. 1812 Fairmont Street
 D. C. 3313 Highland Place
 D. C. Station H, Route A
 Pa. 1822 Kilbourne Place
 Va. Cherrydale Va.
- D. C. 1429 8th Street
 D. C. 235 Tennessee Avenue, N. E.
 D. C. Victor Building
- D. C. 3801 7th Street
 Pa. 1437 Belmont Street
 D. C. 3120 Mt. Pleasant Street
 D. C. 1236 Pleasant Place, S. E.
 Md. 717 Massachusetts Avenue,
 N. E.

- *Thompson, Elizabeth M.
 Thompson, Frances M.
 *Thompson, Marie L.
 Thompson, Maude A.
 Thompson, Minnie F.
 †Thurtell, Charles S.
 *Timmmons, Katherine V.
 *Todd, Luella
 Tompkins, Charles V.
 *Toole, Bertha T.
 Tremain, Ida F.
 Tye, Mary M.
 *Tyler, Mattie R.
 Tyndall, Martha Jane
 Umhau, Katherine S.
 *Utt, D. D.
 A. B., 1912, Washington and Lee
 University
 Valaer, Peter, Jr.
 B. S., North Carolina College of
 Agriculture and Mechanics
 Arts; M. S., George Washing-
 ton University
 *Van Ness, Cora Belle
 *Van Veen, Eugene B.
 Vipond, A. Stuart
 *Volk, Lella L.
 *Wagar, Portia W.
 Wagonsseller, Edith M.
 Walker, Dorothy W.
 *Walker, Edna M.
 Walker, L. Benrice
 Wallace Brynn E.
 Wallace, Margaret R.
 *Walston, Mary L.
 Ward, Mary F.
 †Warner, Anna P.
 *Warner, Russell A.
 Warren, Bessie B.
 Watta, Mary C.
 *Weber, Georges M.
 †Wege, Helen V.
 Weinberg, Lenora
 *Welch, Edith E.
 Welch, Florence L.
 Welling, Cuyler A.
 Wells, Dorothy
 *West, Mrs. Helen M.
 Wetzal, Elsie A.
 *Whalen, George Chandler
 *Whaley Frank L.
 *Wheeler, Hester
 A. B., 1912, Andrews College
 *Whelan, Harry D.
 White, Frank W.
 *White, Ruth
 Whittle, Evelyn L.
 *Whitlock, Carolyn L.
 A. B., 1910, University of Chi-
 cago, and B. Ped., 1912
 Whitlock, Henrietta
 *Whitmore, Helen I.
 *Whiton, Margaret B.
 *Wiener, Florence W.
 Wilcox, Elizabeth S.
 Willard, Emma
 *Williams, Margaret M.
 Wilson, Harry H.
 *Wissinger, Beryl
 *Wood, Margaretta
 Woolley, Marguerite T.
 *Wootten, Katherine H.
 *Wright, Cora I.
 *Wright, Ethel
 *Wright, Eunice W.
 D. C.
 D. C.
 Iowa
 Kans.
 D. C.
 Mex.
 W. Va.
 N. Y.
 Va.
 Pa.
 Ill.
 Ga.
 Canada
 Ia. C.
 D. C.
 Md.
 Va.
 D. C.
 N. Y.
 D. C.
 Ohio
 D. C.
 D. C.
 Utah
 Va.
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 Iowa
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 Pa.
 D. C.
 Va.
 D. C.
 Iowa
 Va.
 D. C.
 2320 Sheridan Circle
 435 12th Street, S. E.
 2918 Cliffbourne Place
 Government Hotels
 741 7th Street, S. E.
 1217 Delafield Place
 1407 G Street, S. E.
 1204 Girard Street
 Alexandria, Va.
 1722 Massachusetts Avenue
 Government Hotels
 1601 Connecticut Avenue
 Government Hotels
 1217 N Street
 3305 16th Street
 2180 F Street
 1872 Kenyon Street
 1757 N Street
 730 21st Street
 2332 17th Street
 1401 Massachusetts Avenue
 2819 P Street
 528 Irving Street
 The Mendota
 Falls Church Va.
 1220 C Street, S. W.
 2007 F Street
 3021 Newark Street
 1401 Massachusetts Avenue
 1853 Ontario Place
 2001 16th Street
 541 21st Street
 Congress Heights, Md.
 The Sherman
 4211 Jewett Street
 2410 13th Street
 433 3rd Street, S. E.
 1436 R Street
 1436 R Street
 2901 16th Street
 Clifton Terrace, West
 Government Hotels
 4411 39th Street
 23 8th Street, S. E.
 U. S. Geological Survey
 611 C Street
 64 I Street, N. W.
 2320 Ontario Road
 1723 G Street
 1449 Rhode Island Avenue
 123 Randolph Place
 123 Randolph Place
 1844 Columbia Road
 1411 20th Street
 1307 Columbia Road
 Clarendon, Va.
 Department of Labor
 Government Hotels
 4604 Georgia Avenue
 1211 N Street
 1618 22nd Street
 1811 16th Street
 1628 Columbia Road
 918 M Street
 229 Rock Creek Church Road
 2027 P Street

*Wright, Hilda
 †Wright, Oscar H., Jr.
 Wymore, Ivey C.
 B. S., 1918, Drake University
 †Yates, Frank L.
 Yousour, Sonia D.
 *Young, Effie A.
 †Young, Harold M.
 *Zahler, Walter R.
 Zeph, Olive
 *Zount, Marie

Va. 729 Upshur Street
 D. C. 1229 12th Street
 D. C. 1724 Park Road
 W. Va. 1733 N Street
 D. C. 300 E Street, N. E.
 Mass. 1819 G Street
 Va. Cherrydale, Va.
 Swit'land 2232 Q Street
 Ill. 821 Allison Street
 Pa. American Red Cross

COLLEGE OF ENGINEERING

CANDIDATES FOR DEGREES

†Ahern, Harry Paul (E. E., 0)	D. C.	3415 Mt. Pleasant Street
Albert, Frank Meyer (C. E., 0)	N. J.	312 C Street, S. E.
Aldridge, Herbert F. (Ch. E., 10)	D. C.	317 Rhode Island Avenue
Allard, Wm. Clinton, Jr. (C. E., 0)	Md.	32 Poplar Street, Takoma Park, Md.
Allardt, Ernst William (M. E., 18)	Ohio	3325 L Street
Aman, Walter Frank (E. E., 118)	Md.	Mt. Ranier, Md.
Anda, Magnus (E. E., 0)	Calif.	2006 F Street
†Artamanoff, George (E. E., 0)	D. C.	1893 16th Street
Aurynger, John J. (E. E., 30)	N. Y.	1908 H Street
Ayres, Hensle Parker (E. E., 0)	Va.	3824 5th Street
Babeock, Earl (M. E., 30)	Ill.	1526 17th Street
Bailey, Emmett Chester (M. E., 30)	Wis.	1849 Ontario Place
B. S., 1916, Beloit College		
Bailey, Malcolm Finley (C. E., 0)	D. C.	316 8th Street, S. W.
Bailey, William Hiram (Chem., 8)	Texas	216 5th Street, S. W.
*Bales, Magnus Dellington (Chem., 0)	Va.	1217 King Street, Alexandria, Va.
Barker, George A. (M. E., 0)	N. Y.	207 A Street, S. E.
Barry, James Milton (E. E., 4)	D. C.	928 G Street, S. W.
Bates, William Isaac (Chem., 8)	Ohio	1332 Massachusetts Avenue
Bauskett, Helen V. (Chem., 34)	D. C.	1201 Girard Street
Beall, Isaac N. (Chem., 38)	D. C.	176 Uhland Terrace
*Beitel, Harry E. (E. E., 0)	Ind.	1426 M Street, Apartment 401
Benson, Russell Bernard (M. E., 42)	D. C.	1406 21st Street
Bergin, May Cecilia (Chem., 0)	D. C.	623 5th Street, N. E.
Berliner, Julius Frederick Thomas (Ch. E., 37)	D. C.	1471 Irving Street
Berman, Arnold Hepron (C. E., 0)	D. C.	2109 18th Street
Berryman, Nalls (Chem., 16)	D. C.	30 Chestnut Street, Takoma Park, D. C.
Bertelson, Charles Wesley (E. E., 16)	N. Dak.	House Office Building, Box 29
Best, Robert Donald (C. E., 2)	Calo.	5223 Belt Road
Biebor, Oscar Peter (M. E., 23)	D. C.	1229 4½ Street, S. W.
Biggs, Zeno Alvin (E. E., 139)	Md.	1730 Euclid Street
Blewitt, John Justin (C. E., 8)	Pa.	1352 Irving Street
†Blinston, Chester A. (E. E., 8)	D. C.	1527 Newton Street
Bonebrake, George Daniel (C. E., 43)	Ohio	3210 Illinois Avenue
Bonnet, Harold Adolph (Ch. E., 0)	D. C.	16 Adams Street
Bowen, Harry Lee (M. E., 0)	Md.	1481 Girard Street
Boyd, Joseph Reginald (E. E., 50)	D. C.	1360 Parkwood Place
Boyden, Roger Talbot (C. E., 123)	Mass.	206 Southbrook Courts
Bradberry, Craig E. (E. E., 25)	D. C.	1848 Lamont Street
Bradshaw, Max Abraham (Ch. E., 30)	Va.	18 Hickory Avenue, Takoma Park, Md.
Brady, John Bernard (E. E., 139)	Md.	202 Orray Building
*Bradenburg, Francis Walter (Ch. E., 0)	D. C.	1835 Park Road
Brandes, Clarence Alfred (C. E., 29)	D. C.	2032 16th Street
Brandt, Paul Fred (C. E., 0)	D. C.	505 4th Street, N. E.
Brauner, Ralph Hermann (E. E., 74)	D. C.	Greenvale Brookland, D. C.
*Brennan, John I. (C. E., 0)	D. C.	111 4th Street, S. E.
*Brown, Ralph Wells (E. E., 0)	D. C.	Box 4247, Takoma Park, D. C.
Bruce, Clarence Smoot (M. E., 34)	D. C.	2661 11th Street
Buchanan, James Allison (C. E., 100)	D. C.	901 M Street
Buckingham, Charles Trump (C. E., 0)	Pa.	1309 Kennedy Street
†Buckley, James Raymond (C. E., 4)	D. C.	640 Lamont Street

*Burggraf, Fred (Ch. E., 22)	Ohio	3917 Livingston Street, Chery Chase
Bark, Paul William (M. E., 31)	D. C.	1322 5th Street
Burner, Charles Alexander (C. E., 37)	D. C.	3322 41st Street
Burneston, Joseph Lee (C. E., 30)	D. C.	1460 Newton Street
Busard, Marcel Julien (C. E., 16)	D. C.	2129 G Street
Campbell, Richard Dodge (E. E., 113)	D. C.	719 Taylor Street
Caplan, Samuel (C. E., 4)	D. C.	489 7th Street
*Carter, Robert Cox (C. E., 11)	Ind.	3513 10th Street
Chatelain, Leon, Jr. (Arch., 6)	D. C.	1125 17th Street
*Christian, Wellner Livingstone (M. E., 18)	D. C.	15 T Street, N. E.
Clarke, Beverly Lonidas (Chem., 35)	D. C.	2127 G Street
*Clark, Frank Moon (E. E., 0)	D. C.	537 21st Street
Clinton, Daniel Joseph (C. E., 25)	Pa.	Riverdale, Md.
Coelho, William (Lieut.) (Ch. E., —)	Argentine	
Graduate, 1912, Argentine Naval School		
*Coghlan, Thomas Francis (E. E., 0)	D. C.	31 U Street, N. E.
Cole, Francis Gruelle (M. E., 72)	D. C.	1909 8th Street
*Collison, Jerome Nulton (E. E., 0)	Ohio	1331 L Street
Combs, Charles Edgar (Arch., 0)	Pa.	431 10th Street
*Connelly, Bernard Michael (C. E., 4)	D. C.	1234 Girard Street, N. E.
Conner, Jesse Paul (E. E., 0)	Ind.	2134 F Street
*Coombs, Walter Edward (Ch. E., 0)	Maine	2120 G Street
Corey, George Holten (Chem., 37)	Pa.	1511 Lamont Street
*Covert, Roy Norton (M. E., 57)	Ill.	2821 27th Street
Cox, Eugene Sheffield (M. E., 25)	Wash.	1100 Vermont Avenue
*Cramer, Baxter B. (E. E., 0)	Md.	2106 F Street
*Cramer, Robert Lea (M. E., 24)	D. C.	2036 1st Street
Crocker, Arthur Wilbur (E. E., 4)	Va.	213 Breach Street, Clarendon, Va.
*Crosthwaite, Stanley Wood (E. E., 6)	Md.	Bureau of Ordnance, Navy Department
Curtiss, Charles L., Jr. (C. E., 0)	Ohio	1625 15th Street
Daddy, George Augustine (Arch., 6)	Mass.	1632 Irving Street
Davidson, Wilbur Delozier (C. E., 77)	D. C.	1807 Good Hope Road, S. E.
*Davis, Fred (C. E., 10)	D. C.	3020 Q Street
Davis, Lloyd Wood (C. E., 0)	N. C.	Y. M. C. A.
Davis, Thomas Allan (Ch. E., 11)	D. C.	635 I Street, S. W.
Delany, James Leroy (M. E., 44)	D. C.	429 Newton Place
Dempsey, James Bryan (M. E., 15)	Kans.	3153 Mt. Pleasant Street
Derrick, John Milton (M. E., 13)	Md.	Poplar Avenue, Takoma Park, D. C.
*Dewey, John Darcey (C. E., 0)	W. Va.	Wardman Park Inn
Dickey, Granville E. (M. E., 0)	D. C.	1702 Kilbourne Place
Disney, Lindsay Pettit (M. E., 53)	D. C.	1212 B Street, S. E.
Ditcheff, Ditcho Hristoff (Ch. E., 0)	D. C.	2025 H Street
Dixon, Harry Bruce (Ch. E., 28)	D. C.	1608 Lawrence Street, N. E.
Dow, Irving Millis (E. E., 0)	D. C.	2047 Park Road
Duft, Harry C. (E. E., 24)	Ill.	Y. M. C. A.
A. B., 1918, Phillips University		
Dutton, Harold Harrison (C. E., 30)	D. C.	1721 Kilbourne Place
Earle, Clarence E. (Ch. E., 34)	Colo.	Bureau of Engineering, Navy Department.
Edwards, Thomas Rives (Arch., 72)	D. C.	Copley Courts
Eichelberger, Donald McCrea (E. E., 0)	D. C.	3600 Macomb Street
Eisinger, John Overton (M. E., 41)	D. C.	3503 Wisconsin Avenue
Elinson, Howard Russell (M. E., 4)	D. C.	1314 Columbia Road
Ellerbrook, John Harry (M. E., 19)	D. C.	1317 Rhode Island Avenue
Engel, Francis Herman (E. E., 10)	D. C.	1103 Columbia Road
Engel, Leslie (M. E., 0)	D. C.	1749 Columbia Road
Epperson, William Philip (Chem., 0)	Mo.	2108 G Street
Erwood, Allen Monroe (Chem., 34)	D. C.	6225 9th Street
*Eschback, Philip Innes (Ch. E., 0)	Md.	8 Iowa Circle
Espejo, Marcelino Vista (E. E., 0)	P. I.	1010 F Street
*Ewell, Agnes Colman (Chem., 63)	Minn.	327 Rhode Island Avenue
Farmer, Albert Rountree (E. E., 0)	D. C.	1234 Columbia Road

Huntington, Carl Douglas (E. E., 11) A. B., 1908, Hamilton; LL. B., 1918, LL. M., National Un- iversity	N. Y.	Patent Office
Jackson, Zimmerman Davis (M. E., 0)	Va.	126 N. Columbus Street, Alex- andria, Va.
*James, Everett Hough (Chem., 0)	Va.	411 South St. Asaph Street, Alexandria, Va.
James, Henry Howell (C. E., 0)	D. C.	1436 Newton Street
Javellana, José B. (E. E., 29)	P. I.	1414 11th Street
*Jett, James Malcolm (C. E., 6)	D. C.	3324 Illinois Avenue
†Johnson, Nevin Benjamin (E. E., 8)	D. C.	1109 Clifton Street
†Johnston, Oliver Lawrence (E. E., 0)	D. C.	284 20th Street
*Johnston, Ruby Pauline (M. E., 36)	D. C.	314 2nd Street, N. E.
Jones, Charles Welpley (Arch., 0)	Va.	Cherrydale, Va.
Kampe, Albert Henry (C. E., 48)	Mch.	1002 M Street
*Kane, Anthony Joseph (Chem., 0)	Pa.	1402 Belmont Street
*Kar, Percy A. (E. E., 8)	Utah	2466 Ontario Road
Kasson, Harold Raymond (E. E., 0)	Ohio	4312 Georgia Avenue
Kaufmann, Marie (Arch., 0)	N. Y.	1724 T Street
Kenny, William Joseph (Chem., 0)	N. Y.	1715 Q Street
*Kiehlne, T. Elwood (E. E., 0)	Pa.	1327 L Street
Kindle, William Hohman (M. E., 0)	D. C.	680 B Street, N. E.
*King, Clarence J. (C. E., 0)	D. C.	1004 Girard Street
King, Henry Kendall (M. E., 0)	Va.	409 Randolph Street
Kirby, Walter J. (M. E., 16)	Ohio	1815 F Street
Kislink, David Edward (Chem., 38)	D. C.	1817 Kenyon Street
*Knapp, Ernest Malcolm (Ch. E., 19)	D. C.	714 Rock Creek Church Road
Knight, Norman Louis (Ch. E., 24)	Mo.	1108 New Hampshire Avenue
Krafft, Carl F. (Ch. E., 134)	Wis.	1211 18th Street
Krehbiel, Elmer Harold (Chem., 43)	D. C.	1016 9th Street, N. E.
Ladd, John G. (C. E., 36)	N. Mex.	6109 Brookville Road, Chey- Chase, Md.
Lane, Russell C. (Ch. E., 16)	N. Y.	2028 F Street
Lanham, Benjamin Edward (Ch. E., 0)	D. C.	72-A Bates Street
Lanigan, Arthur Loyola (E. E., 62)	D. C.	122 Bryant Street
Lapish, Joe Harry (Arch., 75)	D. C.	37 Quincy Place, N. E.
Lawrence, Walter Barton (M. E., 44)	Texas	707 Mt. Vernon Place
Lewis, Robert S. (C. E., 92)	D. C.	2106 F Street
Limper, Ernest A. (M. E., 18)	Ind.	1015 N Street
Linden, Bernard A. (Chem., 97)	N. Y.	611 22nd Street
Lindsey, Irving (Chem., 58)	Va.	1009 Gibbon Street, Alexan- dria, Va.
Llombart, Jose A. (Ch. E., 62)	D. C.	4512 Georgia Avenue
Lloyd, Daniel Boone, Jr. (C. E., 71)	D. C.	1842 California Street
Loeffler, Hyman (C. E., 10)	Va.	1120 King Street, Alexandria, Va.
Loehler, John Gustav (C. E., 0)	D. C.	1412 Montague Street
Loehler, Paul F. (C. E., 33)	D. C.	1412 Montague Street
Loomis, Helen May (Arch., 19)	N. Y.	1324 Otis Place
Mackey, Stuart Jones (E. E., 134) C. E., 1915, Rensselaer Polytech- nic Institute; LL. B., 1918, George Washington University	D. C.	126 C Street, N. E.
Mahoney, John (Chem., 97)	Nebr.	981 M Street
Manner, Claiborne Harrison, Jr. (M. E., 0)	Md.	Rockville, Md.
Marbury, Cabell Bayne (M. E., 0)	D. C.	2231 Mt. View Place, S. E.
Marke, Frank Henry (Ch. E., 89)	D. C.	1002 Fairmont Street
†Marland, Milton L. (C. E., 0)	D. C.	317 A Street, N. E.
†Maroney, Winifred Regina (M. E., 0)	Pa.	2930 Upton Street
Meeks, Pearson Samuel (C. E., 24)	D. C.	1419 Clifton Street
Meiman, William George (C. E., 24)	D. C.	410-A Warner Street
Merris, Donald Eugene (E. E., 72)	Pa.	1419 R Street
Meyerson, Milton Dean (C. E., 44)	N. H.	1849 Ontario Place
Michael, Spencer B. (E. E., 108)	D. C.	18 New York Avenue, N. E.
Miller, Arthur James (E. E., 4)	D. C.	4423 8th Street
Miller, Ralph F. (Ch. E., 81)	Pa.	284 Maryland Avenue, N. E.
Mitchell, Howard J. (C. E., 10)	Pa.	House of Representatives
Moeller, Otto (Chem., 24)	Va.	503 County Road, Cherrydale, Va.
Moore, John Henderson (Ch. E., 31)	D. C.	The Cordora
Moore, Goggin Emerson (Arch., 32)	Va.	The Wentworth, 707 30th St.

- Moore, L. L. Ardrey (Arch., 42) N. C. 453 1st Street, S. E.
 Morawski, Arthur L. (Chem., 80) Mass. 442 Massachusetts Avenue
 *Moulton, George Franklin Ill. 1483 Newton Street, Apartment 6
 (Ch. E., 104) Va. 2110 H Street
 Muse, Frank A. (Arch., 26) D. C. 1919 Nichols Avenue, S. E.
 Mushake, William Ira (M. E., 32) Md. 1420 Ames Place, N. E.
 Myers, Myron Lewis (Chem., 28) D. C. Kensington Apartments, Apartment 4
 McAllister, Russell Naylor (C. E., 15) D. C. 3311 P Street
 McCann, Leo Patrick (E. E., 0) D. C. 1277 North Carolina Avenue
 McCormick, John D. (M. E., 138) D. C.
 B. S. in C. E., 1914, C. E., 1915.
 George Washington University
 McCoy, Horace Burton (C. E., 0) Ind. 923 K Street
 McCoy, John Scott (Chem., 63) D. C. 312 McLean Avenue, S. W.
 McDougle, Warren Vincent Md. 229 B Street, N. E.
 (Arch., 0)
 McGee, Joseph Gerald (C. E., 0) D. C. 525 2nd Street, N. E.
 McKay, Elmer Christie (E. E., 0) D. C. 1101 P Street
 McManamy, Carl Dewey (M. E., 38) D. C. 1833 15th Street
 McNamara, Gordon George, Jr. Ill. 210 Quincy Place, N. E.
 (M. E., 4)
 MacNab, John Carter (M. E., 75) Mass. 1427 Buchanan Street
 McNeely, John Joseph (C. E., 0) D. C. 1734 K Street
 *McRue, John Calender (C. E., 0) D. C. 1789 Lanier Place
 Nagle, Ralph S. (Chem., 33) D. C. 1323 Shepherd Street
 Newcomer, Harry E. (Ch. E., 63) D. C. 2820 Q Street
 *Neill, William Lynville, Jr. Texas 1442 Calvert Street
 (Ch. E., 6)
 Nevins, Julius Salem (Ch. E., 0) D. C. 512 3rd Street
 Newby, Robert Eugene (C. E., 0) D. C. 1222 Euclid Street
 Nickola, Frank Andre (C. E., 31) Md. 2144 H Street
 Nilsson, Knut Ivan (M. E., 86) D. C. 102 Varnum Street
 Norr, Vernon M. (Arch., 0) Utah The Ethelhurst
 Nutt, Charlie Lee, Jr. (Arch., 0) Texas 2015 I Street
 O'Dea, Marie Elizabeth (Chem., 71) Va. 825 18th Street, N. E.
 Orlando, Vincent James (E. E., 80) D. C. 224 1st Street, S. E.
 Owens, Byron (Chem., 38) Pa. 401 McLaughlin Building
 Palmer, James C. (C. E., 0) D. C. 1833 Monroe Street
 Pardoe, Edward Schley (C. E., 52) D. C. 1219 Park Road
 Parker, Thornton Jenkins, Jr. D. C. 1815 Riggs Place
 (M. E., 62)
 Patton, Gordon Sexton (E. E., 46) Mass. 1104 Vermont Avenue
 Payne, Howard S. (C. E., 15) Va. 426-A Warner Street
 †Pengelly, Raymond Leslie Pa. P. O. Box No. 612
 (Chem., 24)
 *Pettit, Will Vernon (C. E., 52) D. C. Box 3033, U Street Station
 †Phillips, Alexander Keene, Jr. D. C. 1420 Hopkins Street
 (M. E., 0)
 †Phillips, Frederick Atkins, Jr. N. Y. 1867 Park Road
 (Ch. E., 0)
 Pim, James Harvey (E. E., 20) Colo. 103 East Building, Bureau of Standards
 Plugge, Norman A. (Chem., 6) D. C. 1210 13th Street
 Poik, Irl (C. E., 39) Mass. 2014 G Street
 *Post, Leo Fred (M. E., 0) Calif. Bolling Field, D. C.
 Potts, John Hartley (E. E., 0) D. C. 444 Park Road
 Powell, Alfred Gottwale (C. E., 25) D. C. 628 6th Street, N. E.
 Prince, Acel Edward (E. E., 28) Idaho Box 20, House Office Building
 Proudley, Charles Earl (Ch. E., 63) D. C. 21 R Street
 *Pugh, Michael O'Connor (C. E., 0) Md. Chevy Chase, Md.
 Quigley, George Wolford, (E. E., 0) Pa. 1938 Biltmore Street
 †Quinn, Edward F. (M. E., 68) N. Y. 2029 G Street
 Ramsey, Osman (M. E., 0) Va. Q. M. Department Headquarters, U. S. Marine Corps Navy Building
 1518 Kearney Street, N. E.
 Reed, Douglass Odenwelder D. C.
 (C. E., 84)
 Reed, Edward D. (C. E., 0) D. C. 2809 14th Street
 *Rice, George Sebastian (E. E., 0) Va. 220 Mt. Royal Street, Alexandria, Va.
 Richmond, Alfred Carroll (C. E., 0) Va. 101 Craft Lane, Cherrydale, Va.
 †Ridgely, Arthur Oertly (M. E., 2) D. C. 203 Rhode Island Avenue, N. E.

Riley, Albert Austin (Chem., 117)	Ohio	3116 19th Street
*Robinson, Robert (C. E., 0)	Ala.	2102 O Street
A. B., 1914, A. M., 1916, Howard College, Alabama		
Roeser, William Frederick (E. E., 25)	D. C.	28th and Q Streets, Apartment 2
Rolph, J. Norton (C. E., 6)	Ill.	1518 K Street
Romhilt, Helen June (Chem., 89)	Ind.	2011 Franklin Street, N. E.
Rose, Leonard Julian (M. E., 94)	D. C.	1918 I Street
Rosenberg, Samuel (M. E., 45)	D. C.	721 4th Street, S. W.
Rosett, Walter (Ch. E., 12)	Md.	4703 Wisconsin Avenue
Ross, Frances Pritchard (Ch. E., 28)	D. C.	2911 Mills Avenue, N. E.
Rotsler, William M. (M. E., 22)	Utah	1903 N Street
Rowe, Charles Roy (E. E., 10)	D. C.	646 Lexington Place, N. E.
Rowland, Thomas John (Arch., 31)	Ga.	The Olympia, Apartment 41
Ruh, Edmund J. (M. E., 10)	N. J.	1954 Biltmore Street
Ryan, Alfred (Chem., 52)	D. C.	3228 18th Street
*St.-Omer-Roy, James Augustus (M. E., 8)	N. J.	3321 18th Street
Saltzman, George Clifford (E. E., 22)	D. C.	1303 Newton Street, N. E., Brookland, D. C.
Sanborn, Norris Henry (Ch. E., 88)	Hawaii	113 Maryland Avenue, N. E.
Sanders, Walter Lee, Jr. (Ch. E., 0)	Va.	Manassas, Va.
Schafer, Frederick (C. E., 0)	D. C.	3258 O Street
†Scharf, John G. (C. E., 6)	D. C.	3411 Brown Street
Schmitt, Edwin Alexis (C. E., 110)	D. C.	305 Southern Building
Schmitt, Henry Martin (M. E., 53)	N. Y.	1429 V Street
Scott, Walter Clifford, Jr. (M. E., 01)	D. C.	649 B Street, N. E.
*Seringeour, Charles Bailey (Chem., 0)	Va.	1822 Columbia Road
Seaquist, William Henry (M. E., 0)	D. C.	919 12th Street, S. E.
Seekinger, Charles Robert (M. E., 0)	D. C.	753 Quebec Street
*Shalowitz, Aaron Louis (C. E., 28)	Md.	U. S. Coast Survey
*Shapiro, Jacob Boone (C. E., 4)	D. C.	3210 11th Street
Shoemaker, Fred Eugene (E. E., 117)	D. C.	5310 Belt Road
Shreve, Richard Southerne, Jr. (M. E., 47)	Va.	Navy Department, Bureau C. & R.
Sillers, Frederick, Jr. (Ch. E., 18)	D. C.	1849 Otis Place
Sloan, Nathaniel Crawford (M. E., 30)	D. C.	2314 17th Street
Smith, Clarence Adrian, Jr. (Arch., 33)	Md.	1750 Massachusetts Avenue
†Smith, Edgar Donald (C. E., 48)	D. C.	1246 Irving Street
*Smith, Melvin Paul (C. E., 0)	Ill.	730 17th Street
Smith, Sydney Scott (M. E., 0)	D. C.	1344 North Carolina Avenue, N. E.
Smith, Wiley C. (Chem., 54)	Mass.	181 11th Street, S. E.
A. B., 1916, Mississippi College		
Snow, Harold Arthur (E. E., 66)	D. C.	1656 Newton Street
Sears, Frances Leota (Arch., 50)	Pa.	16 Everts Street, N. E.
†Solbrig, Alfred William (M. E., 0)	Iowa	1367 Irving Street
Sonntag, Harcourt (M. E., 4)	Va.	1251 Park Road
*Sorensen, James Carlyle (Arch., 36)	Ohio	2222 Georgia Avenue
Sperry, Albert (Chem., 51)	Fla.	612 20th Street
Spielman, William Paul (Ch. E., 16)	Va.	10 K Street, N. E.
Spurr, Frank Arthur (Chem., 124)	Iowa	1404 21st Street
Stanton, Arthur J. (M. E., 40)	Pa.	648 E Street, N. E.
Starr, Arthur Price (Arch., 56)	N. Y.	120 Randolph Place
*Stewart, Thomas Franklin (C. E., 88)	D. C.	703 9th Street, N. E.
*Stinson, Marjorie Claire (M. E., 0)	D. C.	Wardman Park Hotel, Apartment 453-M
Strien, Eugene D. (Chem., 14)	Iowa	612 E Street, N. E.
†Stitt, Edward Wynkoop (M. E., 61)	D. C.	The Chastleton, No. 220
Stockard, John Mahon (M. E., 161)	D. C.	1429 U Street
*Stout, Morris Van Zandt (C. E., 31)	D. C.	1444 W Street
Strang, Harry Ledden, Jr. (E. E., 130)	D. C.	2020 1st Street
Stroop, David Vincent (C. E., 100)	Md.	Forest Service
Strother, David Hunter (M. E., 50)	W. Va.	3153 Mt. Pleasant Street
Strother, Louise Jane (Arch., 0)	W. Va.	3153 Mt. Pleasant Street
*Subers, W. Dexter (Ch. E., 0)	D. C.	511 Columbia Road
Sutton, Don F. (E. E., 43)	D. C.	2013 G Street

Teng, Wen Au (Ch. E., 6)	China	825 East Capitol Street
*Taylor, John Corbin, Jr. (C. E., 28)	D. C.	531 Quincy Street
Teller, Leslie Wayne (C. E., 100)	Mich.	1572 Kenyon Street
Teslin, Morris (M. E., 40)	D. C.	515 4 1/4 Street, S. W.
*Terrill, Clarence Louis (M. E., 6)	Md.	242 Park Avenue, Takoma Park, Md.
Thomason, William Thomas (C. E., 15)	D. C.	640 E Street, N. E.
Thorne, Harold Carrier (E. E., 79)	Minn.	McGill Building
Thorne, Maurice Amos (M. E., 6)	Md.	Beechwood, Tunlaw Road
Tibbitts, Gordon Chase (Ch. E., 110)	D. C.	221 Essex Avenue, Chevy Chase, D. C.
Todd, Lester J. (Ch. E., 25)	Ohio	2006 F Street
Tonkin, William Henry (Chem., 116)	D. C.	2121 15th Street
Trumble, Milton Mason (M. E., 34)	D. C.	407 South Carolina Avenue, S. E.
Tucker, Oscar Samuel (E. E., 60)	Pa.	Y. M. C. A.
Turoff, Louis Webster (C. E., 119)	D. C.	1804 2nd Street
Waller, Raymond Bartlett (Ch. E., 18)	D. C.	3118 14th Street
Walter, Gilbert (E. E., 6)	D. C.	400 Seward Square, S. E., Apartment 42
Wange, Hans (M. E., 19)	D. C.	521 4th Street
Ward, William Robinson, Jr. (M. E., 85)	D. C.	1410 Perry Place
Warren, Edward Seymour (M. E., 18)	D. C.	1485 R Street
Warren, Robert Harvey (M. E., 6)	D. C.	2149 11th Street
Webb, William T. (C. E., 70)	D. C.	2100 95th Street
*Wedemann, Byron Reynolds (E. E., 6)	Pa.	1418 T Street
Welkert, Donald L. (M. E., 6)	Pa.	51074 Park Road
Wendt, Robert H. (E. E., 42)	Iowa	The Chaumont
*Wheeler, Merle (Chem., 8)	D. C.	1537 22nd Street
White, Ernest Cress (Chem., 124)	Va.	1829 19th Street
A. R., 1918, Randolph-Macon	D. C.	2320 Ontario Place
White, Joseph Ledwands (C. E., 6)	D. C.	728 Taylor Street
Whittaker, Gerald C. (C. E., 6)	D. C.	1125 Allison Street
Whyte, Clifton Andrews (C. E., 22)	D. C.	1915 N Street, Apartment 205
Wilks, Van R. (E. E., 18)	Mo.	Bureau of Standards
Wills, George Atkinson (Chem., 6)	Tenn.	2466 Ontario Road
*Wilson, Niles M. (C. E., 6)	Ind.	115 New York Avenue
Winkler, Joseph Wrench (Ch. E., 8)	D. C.	913 I Street
Wulfe, John Fennell (Arch., 6)	D. C.	62 S Street
Woolf, Donald O. (C. E., 23)	D. C.	2715 13th Street
Woodward, Clarence Maxwell (Arch., 145)	D. C.	1744 Riggs Place
Yarle, Carl R. (E. E., 6)	Ala.	1105 11th Street
Yinling, Clinton Kemp, Jr. (C. E., 31)	D. C.	U. S. Soldiers' Home
Zimmermann, John Sylvester Michael, Jr. (M. E., 3)	D. C.	

SPECIAL STUDENTS

Adcock, Lowell Clifton	D. C.	1321 M Street, Apartment 3
*Allen, Jerome Lee	Iowa	Navy Department, Bureau of Engineering
Anderson, William Jones, Jr.	D. C.	1820 Harvard Street
Babcock, William Strong	D. C.	LeDroit Building
Baldner, Joseph Alexander	D. C.	1503 28th Street
*Baum, Edwin C.	D. C.	1108 Euclid Street
Bell, Louis Irving	D. C.	830 Allison Street
Bennett, Harry	Pa.	4109 8th Street
Biggins, William Joseph	D. C.	3915 R Street
Bothwell, Harry Briggs	Pa.	189 F Street, S. E.
Boudin, Herman J.	Md.	1600 Rhode Island Avenue
Bradley, Harvey Yale	Ga.	Y. M. C. A.
Brandt, Russell Wilbur	Nehr.	The Maury, Apartment 24
Brisban, Cecil E.	Mass.	1843 East Capitol Street
Bright, Harry A.	Pa.	Bureau of Standards
*Brown, Thomas S.	D. C.	181 Unland Terrace, N. E.
Bully, Walter F.	D. C.	317 Seward Square, S. E.
B. S., 1918, Alabama Polytechnic Institute		
*Butch, Philip Hyland	Mo.	512 14th Street, Room 702

*Butler, Clarence Wells	Mo.	134 Adams Street
*Callaghan, Edward Mallan	D. C.	808 East Capitol Street
*Carlson, Frederick William	Md.	Motor Route A. Annapolis, Md.
Chagnon, Leon Euclid Ashley	Mass.	735 Quebec Place
Chemnitz, Roy Lee	Ky.	1440 W Street, Apartment 22
Chesney, Earle D.	Neb.	627 7th Street, N. E.
Cornell, Edward Maytarry	Ill.	2727 30th Street, N. E.
Coulter, Virgule Milton	Ark.	2109 F Street
Couper, William	D. C.	3003 Brothers Place
*Court, Oscar P.	D. C.	615 Unshur Street, N. W.
Crews, Maurice A.	D. C.	109 2th Street, N. E.
Dacey, Edward A.	Conn.	518 H Street
*Dant, Ralph Francis	D. C.	4461 Conduit Road
*Deeda, John Francis	D. C.	U. S. Geological Survey
Dorney, Arthur Dales	D. C.	2372 23rd Street
*Downing, George F.	D. C.	1225 Vermont Avenue
*Drastrup, Niels (Lieut., U. S. N.)	Md.	Navy Prov. Gr., Indian Head, Md.
Duckett, Edmund Duval (Lieut., U. S. N.)	Md.	Bladensburg, Md.
Duffy, John Paul	D. C.	3141 Mt. Pleasant Street
*Eaton, William Arthur (Lieut., U. S. N.)	Va.	United States Navy Yard
Edwards, John Evan	D. C.	1315 Belmont Street, Apt. 43
Eisinger, Rudolph John	D. C.	644 Park Road
Eitel, Walter Byron	Pa.	1726 G Street
Elliott, Florian A.	Va.	East Falls Church, Va.
Ellis, John Frank	D. C.	1223 Vermont Avenue
*Farquhar, Carol Miller	D. C.	1515 Culvert Street
Ferguson, Walter Pinnall Cross	Va.	1848 Vernon Street
A. R., 1919, William and Mary College		
Fisher, Roland Martin	Ind.	House P. O.
Gardner, Earle Grace (U. S. N.)	D. C.	1701 Park Road, Apt. 108
*Goffe, Augustus Kilby (Lieut. U. S. N.)	Md.	Naval Proving Grounds, Indian Head, Md.
Hamill, Thomas Edwin	D. C.	430 Manor Place
Hamlin, George	Ky.	1821 11th Street
*Hans, Earl Victor (Lieut. U. S. N.)	Kans.	Bureau of Engineering, Navy Department
Hanson, George Robert	Wis.	Naval Medical School
*Harding, Raymond Barton B. S. in E. E., 1914, George Washington University	Va.	625 G Street, S. W.
*Harris, LeRoy Weinandt	D. C.	1028 6th Street
Hennessey, John Patrick	Conn.	1401 14th Street
Henrickson, Henry Brenton	B. I.	Bureau of Standards
Hensel, Minnie Viola	Ohio	L-M Building, Government Hotels
*Hensel, Rudolph Edwin	D. C.	1234 Hamilton Street
*Herring, Margaret Mathis	N. C.	L-M Building, Government Hotels
*Hill, Edward David (Capt., U. S. N.)	Pa.	Walter Reed Hospital
*Hobson, Julius Allan, Jr. (Ensign, U. S. N.)	D. C.	120 Tennessee Avenue, N. E.
Hobson, Melvin Clay	D. C.	10 W Street
*Holloway, William Sands	Va.	1328 Monroe Street
Houghton, Joseph Davenport	Mass.	1223 L Street
*Hughes, John A.	N. C.	1720 S Street
*Hurley, Herbert E.	D. C.	613 Upshur Street
*Ingerson, Dorothy May	N. Y.	205 10th Street, S. W.
Jacobs, S.	D. C.	Arcyle Apartment, 17th and Park Road
Jackson, George Maynard	Tenn.	1736 G Street
Jones, Joseph Holton B. S. in C. E., 1917, Delaware College	Del.	107 6th Street, N. E.
Karr, Everett Lyle	N. Y.	341 14th Street, N. E.
*Keefer, Waldo Forrest	S. C.	U. S. Naval Medical School
*Kelly, James J.	N. Y.	933 K Street
*Kennedy, Frank M. (Major, U. S. A.) B. S. in C. E., 1908, University of Wisconsin	Ill.	1816 New Hampshire Avenue

†King, Florence H.	Va.	Cottage Park, Alexandria, Va.
*King, Helen	Va.	Cottage Park, Alexandria, Va.
Kitchen, Howard William (Lieut., U. S. N.)		1640 Kalorama Road, Apt. 21
†Kleinshmidt, Lawrence	Ohio	1818 16th Street
Leef, William Hunter	Va.	1200 Pennsylvania Avenue, Room 831
Lehman, Percy Birkett	Md.	Rockville, Md.
Lindsey, Paul	Va.	1908 Gibbon Street, Alexandria, Va.
†Little, Charles M.	Md.	Mt. Ranier, Md.
Loney, Howard C.	D. C.	712 Rock Creek Church Road
†Maitland, Clyde Alfred	Calif.	1316 Girard Street
*Mason, William Albert (Lieut., U. S. N.)	Pa.	Navy Yard
Mehlfelt, James R.	Pa.	21 6th Street, N. E.
*Mehurin, Ellen Louise	Va.	2031 F Street
Mendelson, Israel Jacob	D. C.	2919 M Street
Miller, Elvan	Pa.	Washington Missionary College, Takoma Park, D. C.
*Millon, John Peter (U. S. N.)	Ill.	1120 Staples Street, N. E.
†Mooney, Raymond	Ill.	Walter Reed Hospital
Moore, Eugene	D. C.	1820 California Street, Apartment 33
†Moyer, Robert Ashby	Va.	22 Wilson Boulevard, Clarendon, Va.
†Murphy, Mary Marguerite	D. C.	1723 17th Street
*McAnife, John William (U. S. M. C.)	Mo.	Marine Barracks
*McCarthy, Elwood Wilton	Va.	2027 11th Street
McCarthy, Floyd Carlisle	N. Y.	1317 Fairmont Street
McCormick, Jesse A.	Tenn.	327 Pine Street, Clarendon, Va.
†McDonald, Joseph Robert	D. C.	1802 G Street, N. W.
*McKinnon, Alexander David	Vt.	1311 K Street
McNulty, Richard Robert	Mass.	945 K Street
*Nadelman, Elias	Conn.	148 Todd Place, N. E.
Nash, Andrew Harold	N. J.	1468 Monroe Street
Newbold, Louis Truman	D. C.	1833 Newton Street
†Newby, Elijah James	D. C.	827 F Street, N. E.
*Newell, Edward Lynn	Md.	Naval Proving Grounds, Indian Head, Md.
Newton, William Lee	Ind.	8432 Lowell Street
A. B., 1918, Indiana State Normal		
Nielson, Joseph N.	Ill.	1736 Columbia Road
B. S. in M. E., 1907, University of Illinois; B. S. in Arch., 1911, George Washington University; LL. B., 1914, M. P. I., 1914, Georgetown University.		
Ohlrich, Axel Valdemar	D. C.	511 Seward Square, S. E.
Orton, Clarence F.	Nehr.	Sherman and Garfield Streets
Oscar, Louis C.	D. C.	811 4th Street, S. W.
Pagter, Amos Townsend	Conn.	2166 N Street
Ph. B., 1911, Yale		
Parduhn, Franz Joseph Martin	Ill.	Naval Gun Factory
*Parker, Humphrey Francis	N. Z.	3917 Calvert Street
*Pierpont, Harry Y.	D. C.	1338 Kenyon Street
*Powers, John Thomas	Conn.	1600 Rhode Island Avenue
Poynton, Edward Arthur	D. C.	4019 5th Street, N. W.
Proctor, Frank Baker	D. C.	2120 19th Street
Quick, George Willard	Va.	Bureau of Standards
B. S., 1917, Richmond College		
Ramsay, Harold Theodore	Mass.	Bureau of Standards
*Richards, John Crawford (Lieut., U. S. N.)	Ind.	Naval Proving Grounds, Indian Head, Md.
†Roberts, William Thomas Semmes	Md.	Kensington, Md.
B. S. in C. E., Virginia Military Institute		
Rodier, Phil L.	D. C.	1831 F Street, N. W.
†Rogers, William A.	D. C.	302 Southern Building
Roush, Alan Dwight	Ohio	1210 E Street, S. E.
*Sandys, Edward English	D. C.	Cottage Hill, D. C.
†Saunders, Henry DeButts	D. C.	The Olympia

*Savioe, Robert Stevens (Lieut., U. S. N.)	Pa.	U. S. Naval Gun Factory
Selvey, William H.	W. Va.	2606 Mozart Place
†Shelton, Mary B.	D. C.	1421 Columbia Road, Apt. 1
Shoultes, Marvin A.	N. J.	1416 Rhode Island Avenue
*Siebel, William Lawrence	D. C.	1514 17th Street
*Simmens, Robert L.	Pa.	1432 New York Avenue
Slattery, Thomas F.	Conn.	1835 Kilbourne Place
†Smith, Orville F.	D. C.	1340 F Street, N. E.
*Sparrow, Henry Redfield	Va.	East Falls Church, Va.
*Springmann, Joseph Hiram	D. C.	404 7th Street, S. W.
Stokes, Ralph C.	Fla.	508 Clifton Terrace
Sutton, Dick	Okla.	1329 Delafield Place
Taylor, Minnie White	R. I.	1428 N Street
A. B., 1913, A. M., 1916, Brown University		
*Thompson, David G.	Ill.	U. S. Geological Survey, Interior Building
*Viek, William Alexander (Lieut.)	D. C.	Bureau of Engineering, Navy Yard
Walsh, Joseph Gleason	D. C.	613 H Street, S. W.
*Waters, Charles (Lieut., U. S. N.)	Va.	Bureau of Engineers, Navy Department, Room 2406
*Welker, Charles Daniel	Pa.	804 Kennedy Street
Whaland, Norman D.	Mass.	3746 McKinley Street, Chevy Chase, D. C.
*Whalen, John (Lieut., U. S. N.)	D. C.	U. S. S. Sylph, D. C.
*Whitman, Ralph Franklin	Pa.	1413 Chapin Street
Wilson, John Nantz, Jr.	Md.	Landover, Md.
Worrall, Robert Henry	D. C.	1748 Kilbourne Place
†Wynn, Joseph Floyd	N. C.	3235 P Street
*Yin, Kwang-Hai (Ensign, Chinese Navy)	China	Falkstone Court
Young, Frank Leonard	R. I.	311 13th Street, N. E.

TEACHERS COLLEGE

CANDIDATES FOR THE DEGREE OF BACHELOR OF ARTS
AND BACHELOR'S DIPLOMA IN EDUCATION

*Anronson, Naomi (58)	D. C.	1106 Fairmont Street
Anderson, Theodore Cayler (78)	Va.	302 G Street, N. E.
Andrews, Elizabeth Marie (56)	D. C.	1887 14th Street
Atkins, Mary Lee (6)	Ky.	2201 16th Street
Baltzell, Edna May (6)	D. C.	648 I Street, S. W.
†Barnes, (Mrs) Beulah Shall (6)	Calif.	1029 22d Street
*Bashford, Margaret (164)	Va.	R. F. D. No. 2, Alexandria, Va.
Bassett, Catherine Clarke (77)	D. C.	604 7th Street, N. E.
*Bayles, Maude Juliet (6)	D. C.	19 6th Street, S. E.
Beck, Katherine Dooris (6)	D. C.	801 B Street, S. E.
Beck, Margaret Mae (62)	Wis.	801 B Street, S. E.
Bell, (Mrs.) Elta R. (95)	Ma.	538 21st Street
Bell, Margaret Hyrd (103)	Texas	927 17th Street
Bell, Ruth (85)	D. C.	642 C Street, N. E.
Bennett, Florence Mabelle (6)	D. C.	4411 Iowa Avenue
Berger, Edwin Anson (114)	Pa.	1189 New Hampshire Avenue
*Blackstone, Helen Elizabeth (62)	D. C.	The Alabama
Boardman, Marie Elsie (6)	D. C.	1815 R Street
Booth, Elizabeth McDaniel (1)	D. C.	8005 South Dakota Avenue, N. E.
Bowers, Ethel (73½)	Ind.	2114 G Street
Bovd, Helen (54)	N. J.	1735 Church Street
*Bradley, Mary G. (6)	N. C.	1300 Massachusetts Avenue
Brooking, Esther Foote (6)	Va.	1745 Kalorama Road
Broome, Edwin Warfield (89)	Md.	Rockville, Md.
†Burlingame, Annie Elizabeth (6)	D. C.	919 L Street, Apartment 23
*Burrourghs, Eugene Scott (115)	Md.	Clinton, Md.
Bushy, Betty Olella (6)	La.	Cherrydale, Va.
Butler, Maud Diamond (6)	Calif.	2224 Decatur Place
†Cantrell, (Mrs.) Cecil Homle (6)	Texas	727 20th Street
Carney, Ethel Lamb (55)	D. C.	1009 Otis Place
Carroll, Zata Vilella (6)	Pa.	116 Maryland Avenue, N. E.

†Caron, Bertha Helena (6)	D. C.	419 M Street, N. W.
†Carter, Nelle Elizabeth (8)	Ind.	756 Q Street
Challise, Clara Elizabeth (76)	D. C.	1511 22d Street
Chapman, Marion Louisa (12)	D. C.	2228 15th Street
Cheeseman, Emma Clara (54)	N. Y.	1201 Rhode Island Avenue
Cooper, Agnes Elizabeth (6)	D. C.	1345 L Street
Coates, Lyla Mildred (4)	D. C.	4601 Georgia Avenue
*Coffren, (Mrs.) Helen West (5)	D. C.	24 R Street, N. E.
Colner, Gladys Elizabeth (3)	Va.	113 4th Street, N. E.
Colbert, Alice (29)	D. C.	1782 Lanier Place
*Compton, Lake Ford (58)	Va.	912 14th Street
Connolly, John Alfred (5)	Mass.	1600 Rhode Island Avenue
Cook, Dorothy Allen (52)	D. C.	18 5th Street, S. E.
Crabtree, Eunice Katherine (74)	D. C.	1304 Euclid Street
Craig, Agnes Tot (6)	Ill.	426 Columbia Road
Craig, Margaret Hjelm (6)	Pa.	129 Tennessee Avenue, N. E.
Crockett, Bessie Lee (78 1/2)	D. C.	1617 Swan Street
Darby, Margaret Ijams (38)	Md.	C-D Building, Gov't Hotels
Davison, (Mrs.) Mabel M. (128)	D. C.	2760 18th Street
Davison, Ruth Lowe (16)	D. C.	P-O Building, Gov't Hotels
†Dawes, Elizabeth Mary (6)	D. C.	816 M Street
†Dilger, Mary Anne (49)	D. C.	1211 Euclid Street
Dillard, Mary Elizabeth (84)	Ala.	919 19th Street
Draper, (Mrs.) Elizabeth Kohl (62)	D. C.	1453 Fairmont Street
Driscoll, Gertrude Mary (6)	D. C.	1219 M Street
Dulin, Cecilla Pinkney (77)	D. C.	3725 Morrison Street
Earnest, Hazel Virginia (4)	Md.	Mt. Rainier, Md.
Earnest, Lillian Ophelia (43)	Md.	Mt. Rainier, Md.
*Eddie, Margaret Jane (116)	N. Y.	3812 7th Street
*†Edwards, Rachel Rowena (6)	Md.	2026 P Street
Emmons, Elizabeth Simmons (6)	D. C.	1100 Pennsylvania Avenue, S. E.
Eustein, Tessie (24)	N. Y.	1432 R Street
Ernest, Nora Agnes (8)	Pa.	1307 Fairmont Street
Evans, Mattie (6)	Ind.	2153 New York Avenue
Ewer, Maidee (6)	Calif.	1141 New Hampshire Avenue
Faria, Helen Milla (39)	D. C.	1345 Harvard Street
Ferguson, Hazel Helena (186)	Ind.	1853 Newton Street
Fowler, Alice Virginia (48)	D. C.	1310 Irving Street
†Frankenfeld, (Mrs.) Mary L. Hayes (6)	N. J.	Cottage Hill, D. C.
Fravel, Margaret (27)	Va.	East Falls Church, Va.
Frost, Elizabeth Sutherland (6)	Va.	Fort Meyer, Va.
Gardner, Ida Carrie Helen (108)	Iowa	Kendall Green, D. C.
Gallher, Blanche Pauline (98)	D. C.	498 6th Street, N. E.
*Gamba, John Sacke (118)	Ohio	2417 University Place
Gardner, Rufus Solomon (108)	Va.	Ballston, Va.
Gervais, Mae Celanire (6)	D. C.	715 Monroe Street, N. E.
Geschickter, Josephine (6)	D. C.	1222 Connecticut Avenue
Gessford, Margaret (74)	D. C.	3123 B Street
Getty, Annie Graham (48)	D. C.	1819 Columbia Road
Gleason, (Mrs.) Mamie Martin (4)	Va.	1144 15th Street
Gregory, Agnes Josephine (52)	D. C.	The Olympia
*Griest, Estelle Caroline (6)	D. C.	1517 A Street, N. E.
*Grubb, Dora Ellis (67)	Va.	1914 H Street
*Grubbs, Birdie Alma (6)	Ky.	1369 17th Street
Guanella, Frances Marie (39)	Iowa	1865 16th Street
Guest, Cora Estelle (85)	D. C.	3185 18th Street
Guest, Margaret Reid (85)	D. C.	3185 18th Street
Gulford, Charles Carlton (186 1/2)	Va.	R. F. D. No. 1, McLean, Va.
Guyton, Aenes H. (6)	Colo.	The Cumberland, Apt. 82
*Hundy, Jessie Bruce (64)	D. C.	1997 Park Road
Hart, Sara Teresa (4)	Va.	P-O Building, Gov't Hotels
Hebler, Anna (75)	D. C.	1256 Columbia Road
Hellman, (Mrs.) Gladys Strong (6)	D. C.	2408 Jocelyn Street
Henderson, Eleanor (112)	D. C.	1630 17th Street
†Henneman, Mary (6)	Ohio	245 Tennessee Avenue, N. E.
Hessler, Agnes Bertha (32)	D. C.	1358 C Street, S. W.
†Heyl, (Mrs.) Lucy Knight (6)	D. C.	1815 Fairmont Street
Hickman, Clara (6)	D. C.	449 New Jersey Avenue, S. E.
Hill, Hazel Rae (6)	Md.	1809 17th Street
*Hines, Ruth Gladys (88)	Mass.	154 Bridge Street, Beverly, Mass.
*Hoge, (Mrs.) Verna Blankenship (6)	Va.	1718 14th Street
Hoskinson, Dorothy Louise (32)	D. C.	1661 Wisconsin Avenue

- Hughes, Hazel Dorothy (37)
 Hull, Harriet Belva (0)
 *Hunter, (Mrs.) Jessie Kelly (0)
 Hyman, (Mrs.) Sadie Zunsner (78)
 *Hekia, Imogene Rachael (3)
 Ivey, Edward Erroll (85)
 Jackson, Franklin Joseph (107)
 *Janson, Mildred (36)
 Jenkins, Kathryn Bird (80)
 *Johnson, Agnes Lucile (0)
 *Johnson, Alice Blanchard (0)
 Johnson, Virginia Head (80)
 Jones, Eunice (0)
 *Jones, Melba Leonora (0)
 Jones, Miriam Margaret (31)
 *Kause, Selma (83)
 Keesocker, Ward Wilbur (82)
 Keliher, Annie Cecelia (0)
 Kendrick, Elizabeth Henry (82)
 Kennedy, Mabel Louise (52)
 Kirkbride, (Mrs.) Irene Elytree (31)
 *Larick, Elizabeth Ann (0)
 Lewis, Dorothy Mae (0)
 *Lewis, Elizabeth Stanton (60)
 Lindsay, Ruth (0)
 Lohmann, Pauline (58)
 Loman, Mary Eugenie (64)
 Loux, Lloyd Fox (30)
 *Love, Kathryn Eulalia (0)
 *Love, Ruby (86½)
 Lucas, Bertha Lovell (81)
 *McCarten, Katherine (0)
 McClure, Dora Florence (4)
 McGowen, Ruth Jeannette (85)
 McKibbin, Mary Thelma (38)
 *Mace, Eloise Veira (0)
 Maffet, Marie Lucile (0)
 Magnier, Rose Olga (0)
 *Magruder, Mary (93)
 Mahoney, Julia Dorothy (0)
 Maitland, Florence (0)
 Maloney, Emma Jane (0)
 Mason, Lillian Beatrice (0)
 *Matthews, Edna Helene (101)
 *Matthews, Merla Glenn (0)
 Meek, Lois Hayden (101)
 Meeks, Esther Edith (0)
 Mennough, Cora Joy (115)
 Meyers, Clara Belle (11)
 *Michelson, Bernadette Serena (88)
 Mills, Agnes Josephine (80)
 Minor, Isabel Maynard (84)
 *Minor, Iva Gola (89½)
 Monred, Ravenell Annesbey (89)
 Moody, Ada Cleora (60)
 Moore, George Mansfield (111)
 Moore, Susanne Adamson (4)
 *Morrow, Clara Allen (76)
 Mortimer, Florence Craigie (56)
 Murray, Harriet Lenore (93)
 *Nelson, Clarissa Adeline (15)
 Newlove, (Mrs.) Marie White (107½)
 Newlove, Irvadell Elsie (105)
 Nicholls, Virginia Mason (70)
 Nichols, Dorothy Valentine (28)
 Nichols, Herbert Barker (88)
 Nichols, Mildred Jenney (0)
 Norris, (Mrs.) Bertha Howie (80)
 *O'Brien, Mary Margaret (0)
 O'Brien, Margaret Rose (74)
 D. C.
 Ill.
 Texas
 D. C.
 Iowa
 Calif.
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 N. C.
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 D. C.
 232 6th Street, S. E.
 3305 7th Street, N. E.
 Abilene, Texas
 8401 16th Street
 8816 Mt. Pleasant Street
 210 B Street, S. E.
 1212 Massachusetts Avenue
 814 Spring Road
 903 H Street
 2106 18th Street
 3726 Oliver Street
 The Willson
 1860 Mintwood Place
 4005 Georgia Avenue
 107 2d Street, N. E.
 1309 Newton Street, N. E.
 1929 K Street
 2007 O Street
 The Cumberland
 West Falls Church, Va.
 834 Rock Creek Church Road
 R-S Building, Gov't Hotels
 4438 Kansas Avenue
 8216 Mt. Pleasant Street
 Cabin John, R. F. D. No. 2.
 Bethesda, Md.
 429 4th Street, N. E.
 Sherman Avenue, Takoma
 D. C.
 1139 New Hampshire Avenue
 1930 Irving Street, N. E.
 1508 R Street
 2118 25th Street, S. E.
 104 6th Street, S. W.
 68 Chestnut Street, Takoma
 Park
 1808 Kenyon Street
 117 T-1 Building, Government
 Hotels
 1434 Harvard Street
 1812 N Street
 2810 20th Street
 Rockville, Md.
 1250 8th Street
 1216 Girard Street
 The New Berne
 229 12th Street, S. E.
 1212 E. 12th Street
 Riverdale, Md.
 1818 Kalorama Road
 812 20th Street
 1710 13th Street
 3214 Wisconsin Avenue
 608 Webster Street
 1309 17th Street
 129 Varnum Street
 2817 13th Street
 Gaithersburg, Md.
 1512 P Street
 621 Rock Creek Church Road
 1209 18th Street
 Wardman Park Hotel
 1141 New Hampshire Avenue
 120 2d Street, N. E.
 18 Hamilton Street, Brent-
 wood, Md.
 713 19th Street
 2109 F Street
 2144 F Street
 6402 Connecticut Avenue
 8462 Connecticut Avenue
 3921 Morrison Street
 537 21st Street
 2140 P Street
 1002 4th Street, N. E.

- O'Connell, Margaret Jenn (0)
 Oldham, Elizabeth Grace (8)
 *O'Leary, Eleanor Frances (0)
 Orynski, Wanda (113)
 Pascoe, Ethel Mae (64)
 Patterson, Margaret St. Clair (27)
 †Payne, Nellie Angeline (0)
 Pedigo, Florence Edna (6)
 Poindexter, Mattie (111)
 Pollock, Laura Kersey (81)
 Porter, Bessie Jane (82)
 †Postlen, Virginia (0)
 †Prangley, Blanche Irene (0)
 Probey, Helen Louise (0)
 *Rachford, Leo (0)
 †Ramey, Elizabeth Margaret (0)
 Randall, Bernice Dannell (119)
 Reeves, Ruth Elizabeth (98)
 Renshaw, (Mrs.) Annie Tillery (11)
 Rhodes, Freda (3)
 †Rick, Ernest Charles (0)
 *Riess, Margaret Henrietta (0)
 Riggs, Florence Margaret (0)
 Roat, Anna Louisa (108)
 *Rod, Eva (12)
 *Roethlisberger, Bertha Marie (0)
 Rogers, (Mrs.) Florence Hopkins (78)
 *Rose, Lael Tench (6)
 Rose, Mary Estelle (117)
 Ross, Helen Grace (0)
 Rucker, Ruth Eliza (0)
 *Rue, Harold Percy (121)
 Rutter, Emma Louise (10)
 Sabella, Ricardo Hiceta (80)
 Sage, Lillian Warfield (105½)
 Saunders, Marian Elizabeth (0)
 Scales, Elizabeth (120)
 *Schoenborn, Theresa Fredericksa (56)
 *Scott, Esther Webb (0)
 Scott, Pauline (108)
 Selah, Miriam Hughes (104)
 Shenda, Mary Elizabeth (64)
 Sherman, Louise (0)
 Shewmaker, Lillian Alice (0)
 Sittler, Margaret Anne (77)
 *Smith, Helen Carroll (0)
 *Smith, Maurice Merle (124)
 Smith, Zeula Zong (65)
 *Sondergaard, Avenna Rodholdt (0)
 *Soper, (Mrs.) Grace Wilkins (0)
 Sotzin, Heber Allen (10)
 Spencer, (Mrs.) Lucy Whitney (35)
 Spielman, Marian Blasco (8)
 *Springmann, Eva Catherine (0)
 Squire, (Mrs.) Minnie C. (68)
 *Stagg, Ella MacRae (0)
 Staley, Adeline Emma (0)
 Stallings, Mildred Evelyn (93)
 St. Clair, Ruth Clara (19)
 Sterling, Norris Virginia (0)
 Stewart, Emily Nourse (82)
 Stewart, Elizabeth Tabb (100)
 Stophlet, Jean Gailley (0)
 †Stuart, Katharine Homaiselle (0)
 Suguitan, Demetrio (0)
 Taylor, Bertha Elmore (17)
 Taylor, Gwendollin (0)
 Taylor, Mary Ella (37)
 †Taylor, Nellie Boyd (86)
 *Thomas, Eula Claronne (0)
 Wis.
 Fla.
 D. C.
 Texas
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 P. I.
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 Kans.
 D. C.
 D. C.
 Ky.
 J-K Building, Gov't Hotels
 V-W Building, Gov't Hotels
 2009 F Street
 2008 G Street
 2818 27th Street
 3107 N Street
 Alexandria, Va.
 1014 G Street
 732 21st Street
 The Victoria
 1178 New Hampshire Avenue
 3516 Park Place
 202 10th Street, N. E.
 3138 O Street
 720 17th Street
 110 St. Alfred Street, Alex-
 andria, Va.
 2035 F Street
 Falls Church, Va.
 2109 F Street
 2721 11th Street
 120 18th Street
 949 Massachusetts Avenue
 308 2nd Street, N. E.
 1130 North Capitol Street
 2104 18th Street
 122 5th Street, S. E.
 1104 Euclid Street
 2063 Tilden Street
 2963 Tilden Street
 Bellevue Magazine, D. C.
 Garrett Park, Md.
 3020 Dent Place
 2901 16th Street, Apt. 63
 2150 F Street
 Rockville, Md.
 900 B Street, N. E.
 225 G-H Building, Government
 Hotels
 1359 Harvard Street
 3100 P Street
 The Balfour
 17 2d Street, N. E.
 The Balfour
 637 M Street, N. E.
 300 Rhode Island Avenue,
 N. E.
 417 11th Street, N. E.
 1209 B Street, N. E.
 2511 14th Street
 2026 F Street
 301 Upshur Street
 407 Wilson Boulevard, Claren-
 don, Va.
 East Falls Church, Va.
 Chevy Chase, D. C.
 10 K Street, N. E.
 793 6th Street, S. W.
 1349 Parkwood Place
 East Falls Church, Va.
 2119 F Street
 108 Tennessee Avenue, N. E.
 Alexandria, Va.
 2101 F Street
 2033 R Street
 East Falls Church, Va.
 1702 Kilbourne Place
 Alexandria, Va.
 2518 Newark Street
 1634 Euclid Street
 4124 New Hampshire Avenue
 1614 1st Street
 2351 17th Street
 138 Varnum Street

*Thompson, Mary Ada (116)	Miss.	1818 H Street
Thornhill, Annie Collier (88)	Va.	8033 15th Street
Thour, Emily Anna (48)	D. C.	786 11th Street, N. E.
Thrasher, (Mrs.) Annie Blackburn (18)	D. C.	417 M Street, N. E.
Tonge, Catherine Mary (106)	D. C.	401 Willard Courts
Tuckey, Ruth Elizabeth (6)	D. C.	40 T Street
Twele, Gladys Rosamond (66)	D. C.	Lanham, Md.
VanDyke, Mabel (21)	Ohio	121 North Carolina Avenue, S. E.
Van Emon, (Mrs.) Antoinette Malnatti (6)	D. C.	712 East Capitol Street
VanNess, Myrtle Audrey (6)	Mich.	935 New York Avenue
Waffter, Margaret Elizabeth (6)	N. Y.	Kendall Green
*Walcott, Marie Estelle (78)	D. C.	410 6th Street, N. E.
Walker, Grace Allen (8)	D. C.	7610 Blair Road
Walsh, John Bernard (111)	Mont.	442 Massachusetts Avenue
Whitford, Elizabeth (52)	R. I.	2479 16th Street
Whitzell, Margaret Eva (88)	D. C.	The Alabama
*Wiegand, Regina Sophia (24)	D. C.	424 6th Street, S. W.
Williams, Effie May (6)	D. C.	385 7th Street, N. E.
Williams, Harriet Martha (61)	Pa.	1756 Q Street
Williams, Mary Lillian (6)	Conn.	1708 2d Street, N. E.
Williamson, Margaret (68)	Va.	1725 H Street
Willis, Virginia Joyce (18)	Va.	1629 14th Street
Wimer, Martha Elizabeth (65)	D. C.	1922 Belmont Road
Wolman, Rena (108)	Md.	1410 Pennsylvania Avenue
Womersley, Grace Merrill (12)	D. C.	4122 8th Street
*Wood, Bessie Taylor (6)	D. C.	645 B Street, N. E.
*Wooder, Russell Ballard (6)	Ind.	1727 F Street
Woodford, Beatrice Kinsman (6)	Md.	Silver Springs, Md.
*Wooster, Vivian (81)	D. C.	1749 Q Street
Yost, Myrtle Estelle (37)	D. C.	1602 Pennsylvania Avenue, S. E.
Young, (Mrs.) Evelyn Hampel (60)	S. Dak.	East Falls Church, Va.
Young, Grover Cleveland (90)	S. Dak.	East Falls Church, Va.
*Zenfloss, John Elmer (6)	Pa.	803 Allison Street

SPECIAL STUDENTS

Austin, Bertha	Ala.	1332 I Street
Crady, Anna Cecelia	Md.	The Cairo
*Downey, Jane	D. C.	440 Rhode Island Avenue
Elliott, Mayme Salmon	Va.	927 17th Street
Fitzhugh, Sallie Pannill	Va.	1236 Girard Street
Gallher, (Mrs.) Monnie	D. C.	426 6th Street, N. E.
*Gould, (Mrs.) Irene Metter	Ala.	157 South Cedar Street, Mobile, Ala.
†Gray, Rubie	Pa.	Mt. Rainier, Md.
*Guffy, Mary Grace	N. C.	1320 10th Street
†Hayden, Elizabeth Anne	D. C.	Stratford Hotel
Herring, Annie Fulton	N. C.	128 E Street, S. E.
*Hill, Flossie May	Ohio	935 New York Avenue
Howard, Ella Oldham	Mass.	929 New Hampshire Avenue
Jessup, Maud Meredith	Va.	1236 11th Street
†Lee, (Mrs.) Charlotte White	D. C.	1753 Kilbourne Street
Mudd, Marion Beulah	Ky.	144 Uhland Terrace, N. E.
*Owens, Ethel Geneva	Va.	1302 Caroline Street
*Parkes, Sara Jay	D. C.	1811 Q Street
Patterson, Johnnie Allen	Texas	2135 L Street
Smith, Isabelle	Ill.	6614 Harlan Place, Takoma Park
B. S. Valparaiso University	Ky.	2224 F Street
Smith, Jessie	Va.	2016 16th Street, N. E.
*Smith, Minta	D. C.	1835 Newton Street
†Snowden, Elizabeth Victoria	D. C.	1800 K Street
St. John, Grace Zinsmeister	D. C.	1814 Ingleside Terrace
†Toner, Caroline Estelle	W. Va.	L-M Building, Gov't Hotels
Wagoner, Ada Louise	Ind.	2120 G Street
†Warnecke, (Mrs.) Cornelia	D. C.	1664 Columbia Road
†Weston, (Mrs.) Elbertine Cowling		

SUMMER SCHOOL

- Aaronson, Emanuel
 District of Columbia
 Abell, Emma B.
 Pennsylvania
 Ahern, Harry Paul
 District of Columbia
 Aiken, Carolyn
 Tennessee
 Aiken, Miss Sam
 Tennessee
 Alexander, Susan
 Illinois
 Alseen, Myrtle F. C.
 Minnesota
 Anderson, Edith
 Illinois
 Anderson, Theodore C.
 Virginia
 Angstadt, Alice E.
 Pennsylvania
 Arend, Fred L.
 Michigan
 Armbrust, Madeline P.
 Pennsylvania
 Arnold, Ralph M.
 Maryland
 Arrowsmith, Jean M.
 Pennsylvania
 Ashburn, Samuel A., Jr.
 Texas
 Ashford, Alice M.
 District of Columbia
 Ashman, John H.
 Washington
 Atkeson, Thomas C.
 Alabama
 Audigier, Miss Louie
 Arkansas
 Aurynger, John James
 New York
 Azula, Juan
 Peru
 Babcock, Earl
 Nebraska
 Bacheller, Alice
 Massachusetts
 Baker, Caroline B.
 Ohio
 Baker, Perry R.
 Missouri
 Ball, Alice M.
 District of Columbia
 Ballenger, John F.
 District of Columbia
 Ballinger, William M.
 District of Columbia
 Barker, George A.
 District of Columbia
 Barlow, R. Geraldine
 District of Columbia
 Barnhard, James L.
 Arizona
 Bates, William I.
 Ohio
 Bauskett, Helen V.
 South Carolina
 Beach, Jessie
 Texas
 Beach, Mary J.
 Florida
 Beall, Dorothy
 District of Columbia
 Beall, Isaac N.
 District of Columbia
 Beaulac, Willard L.
 Rhode Island
 Beckett, Edgar W.
 New Jersey
 Behne, Joseph C.
 Oklahoma
 Behne, Thomas D.
 Oklahoma
 Behrend, Henrietta
 Maryland
 Bell, M. Byrd
 Texas
 Bell, Ruth
 District of Columbia
 Benfer, Mary C.
 District of Columbia
 Bennett, Ava L.
 Ohio
 Berger, Edwin A.
 Pennsylvania
 Bergin, May C.
 District of Columbia
 Berkman, M. H.
 District of Columbia
 Bertiner, Julius F. T.
 District of Columbia
 Best, Robert
 Colorado
 Bethel, Nora
 Illinois
 Blackford, Hugh C.
 Maryland
 Bittner, Elva D.
 Pennsylvania
 Black, Owen
 LL. B. George Washington Uni-
 versity
 Oklahoma
 Blair, Isabel
 Pennsylvania
 Blank, Samuel H.
 New Jersey
 Bleiker, Ross F.
 Missouri
 Blumberg, Philip
 District of Columbia
 Boardman, Leona
 Ohio
 Bochan, Harry
 China
 Bodinheimer, Mary
 Indiana
 Boltz, Nell C.
 Pennsylvania
 Bond, S. Hazen, 2nd
 Illinois
 Borden, Hazel A.
 Massachusetts
 Bowen, George L.
 Kansas
 Bowman, Henry S.
 B. S. Davidson College
 South Carolina
 Boyd, Helen
 New Jersey
 Boyd, James I.
 District of Columbia
 Boyden, Roger T.
 Massachusetts

- Bradley, Mary M.
 Georgia
 Bradshaw, Max A.
 Virginia
 Bridges, Idria
 Illinois
 Brimer, Thomas J.
 District of Columbia
 Brode, Robert B.
 Washington
 Brookley, Lora
 Ohio
 Broome, Edwin W.
 Maryland
 Browne, Erma
 Missouri
 Brown, Constance C.
 District of Columbia
 Brown, Georgia M.
 Minnesota
 Brown, Lucile
 District of Columbia
 Brown, Mabel A.
 Illinois
 Buck, Mrs. Lura
 Maryland
 Burchfield, Henrietta
 New York
 Burdick, Bernard F.
 Alabama
 Burgin, Walter H.
 Maryland
 Burneston, J. Lee
 District of Columbia
 Burroughs, Eugene S.
 Maryland
 Burton, Margaret
 Indiana
 Burton, Oliver E.
 West Virginia
 Bushong, Levi D.
 Virginia
 Butkiewicz, Eugenia
 Illinois
 Butkiewicz, John K.
 Illinois
 Butler, Albert E.
 Massachusetts
 Butler, Margaret
 District of Columbia
 Butler, Marion, Jr.
 North Carolina
 Butler, Mary J.
 New York
 Butler, Wiley
 North Carolina
 Buzbee, Joshua Q.
 Alabama
 Buzbee, Robert Buell
 Alabama
 Caldwell, Miller L.
 Virginia
 Calhoun, Edward J.
 South Carolina
 Callahan, D. F.
 Connecticut
 Camp, Francis W.
 District of Columbia
 Cameron, Donald Rowe
 District of Columbia
 Campbell, J. Alvin
 Pennsylvania
 Cantrell, Tilman B.
 Illinois
 Carnahan, Lina
 A. B., George Washington Uni-
 versity
 Missouri
 Carroll, Ellen L.
 Mississippi
 Carter, Jennie D.
 Illinois
 Casper, Mabel
 Ohio
 Castle, Wanda R.
 Texas
 Cerceo, A. Victor
 District of Columbia
 Chamblin, Julia V.
 Virginia
 Chan, I. H.
 China
 Chandler, Elizabeth
 Maryland
 Chantland, Grace
 Iowa
 Chapman, Katharine
 Maryland
 Chappell, Lillian M.
 District of Columbia
 Chester, Anna M.
 Michigan
 Cheek, E. Caroline
 North Carolina
 Chipley, Anna E.
 District of Columbia
 Christoph, Fred A.
 District of Columbia
 Chu, King
 A. M., George Washington Uni-
 versity
 China
 Churbuck, Lewis M.
 Massachusetts
 Church, Earl R.
 Michigan
 Clagett, Raymond R.
 Maryland
 Clark, Mary Theresa
 District of Columbia
 Clark, Morrison M.
 Maryland
 Clarke, B. L.
 Tennessee
 Clayton, Harold O.
 District of Columbia
 Cline, R. C.
 North Carolina
 Cohen, Roger S.
 Litt. B., Princeton University
 District of Columbia
 Colbert, Alice
 District of Columbia
 Coleman, Charles H.
 District of Columbia
 Coleman, Denver D.
 Ohio
 Colflesh, Robert W.
 Iowa
 Collum, Edward J.
 Pennsylvania
 Colman, Perry H.
 District of Columbia
 Compton, Lake F.
 Virginia
 Condon, Miss F. B.
 District of Columbia
 Conner, Jesse P.
 Indiana

- Cohnick, Mildred
 District of Columbia
 §Constantinopolus, Panagiotos
 Virginia
 Conyers, Christopher T.
 Georgia
 Cooperman, Hattie
 Iowa
 Corbitt, Hugh B.
 Washington
 Corey, George H.
 Pennsylvania
 Corey, Wilbur L.
 New York
 Cornell, Edward
 Illinois
 Cornell, Florence N.
 Illinois
 Cotton, Cornelia M.
 District of Columbia
 Couper, William
 Florida
 Cox, Carrie Juliet
 West Virginia
 Crabtree, Eunice
 District of Columbia
 Craighill, Sallie E.
 West Virginia
 Cramer, Baxter B.
 Maryland
 Cramer, Robert L.
 District of Columbia
 Creswell, G. William
 Maryland
 §Croggan, William N.
 District of Columbia
 Crosby, Pearl
 New Jersey
 §Crowder, Gertrude
 Indiana
 Cudney, Ethan B.
 Michigan
 §Cullen, Thomas F.
 District of Columbia
 Cunningham, Frederick R.
 Virginia
 Cunningham, Louise
 New York
 §Current, Ruth
 North Carolina
 Dahl, Bertha
 Iowa
 §Daly, Cecilia
 New York
 §D'Andrea, Augustus C.
 Pennsylvania
 Daniel, R. C.
 Virginia
 Darby, Roy T.
 Iowa
 Davis, Jeannette
 Indiana
 Denn, Benjamin F., Jr.
 District of Columbia
 Denn, Walva
 Oregon
 De Brodes, George V.
 District of Columbia
 Degener, Edward L.
 Illinois
 §De Lacy, Anne
 Maryland
 De May, Mrs. Mattie W.
 Kentucky
- Denison, Irving A.
 B. S., University of Illinois
 District of Columbia
 De Sparrie, John
 District of Columbia
 Deuterman, Joel L.
 Virginia
 Dillard, Elizabeth
 Alabama
 Dodd, Atta E.
 New York
 §Dodson, Dorothy
 District of Columbia
 Donaldson, Lottie S.
 Kentucky
 Donnelly, H. J.
 District of Columbia
 Donovan, Welton J.
 Massachusetts
 Dorsey, James A.
 Virginia
 Downey, Jane
 District of Columbia
 §Downs, Wallace J.
 B. S., Thiel College
 Pennsylvania
 Doyle, Blanche Gleason
 Illinois
 Drane, Estella C.
 District of Columbia
 Draper, Mrs. Elizabeth
 District of Columbia
 Draper, Henry W.
 District of Columbia
 Drew, Alice E.
 Florida
 Drew, Marietta E.
 Florida
 Drummond, Earle J.
 Ohio
 Dubins, Julius
 New York
 Dudley, John W.
 Massachusetts
 Duft, Harry C.
 A. B., Phillips University
 Nebraska
 Duggan, James H.
 Georgia
 Duggan, Leo F.
 B. S., University of Michigan
 Michigan
 Durand, Manuel G.
 Argentina
 Earnshaw, William I.
 District of Columbia
 Easter, Clay M. R.
 Virginia
 Eccles, Parley P.
 Utah
 Edle, Harriet
 New York
 Edle, Margaret
 New York
 Edington, Wallace D.
 A. B., Gallaudet College
 District of Columbia
 Edwards, Rachel R.
 Missouri
 Egner, Raymond A.
 Maryland
 Ehret, Ruth G.
 New Jersey
 Elsing, Rudolph J.
 District of Columbia

- Eleston, Mary
 Wisconsin
 §Elliott, Maxine
 Virginia
 Emen, Elizabeth
 Tennessee
 Emen, Miriam Virginia
 Tennessee
 Estevez, Juan
 Porto Rico
 Farrell, Thomas F.
 Massachusetts
 §Farris, May
 Indiana
 Fengana, Hazel H.
 Indiana
 Fedde, Walter C.
 Colorado
 Fenton, Anna B.
 Massachusetts
 Frebee, Cora B.
 North Carolina
 Ferguson, Elizabeth G.
 Georgia
 Fettis, Miriam W.
 District of Columbia
 Field Edith
 West Virginia
 Field, Rosalie
 Mississippi
 Fisher, Margaret
 Iowa
 Fitch, Grant
 District of Columbia
 §Fleming, Euclid S.
 District of Columbia
 Flisher, Leonora Vest
 New York
 §Flury, Henry
 Pennsylvania
 Ford, Julia Louise
 District of Columbia
 §Forrest, Mrs. Mary L.
 Ohio
 Porry, Ada M.
 Pennsylvania
 Foster, Ben S.
 Arkansas
 Fox, James C.
 Maine
 Free, Walter H.
 Iowa
 §Freeland, Fred B.
 South Dakota
 French, Emma
 Virginia
 Frey, Mabel Joyce
 Pennsylvania
 Friedenberg, Harry
 District of Columbia
 Fulka, Iva
 Maryland
 §Fuller, Herbert G.
 Washington
 §Fuqua, Delmour J.
 Maryland
 §Gallagher, Thomas A.
 New York
 Gamba, John S.
 Ohio
 Gardner, Allen H.
 Pennsylvania
 Gardner, Rufus S.
 Virginia
 Gault, Anna C.
 New York
 Geier, Fred A. J.
 District of Columbia
 George Mary V.
 New York
 Gibbon, Maris Estella
 Virginia
 Gilchrist, Ralph A.
 New York
 Gladstone, Bernard A.
 New York
 Glass, John D.
 Kansas
 Glew, Don H.
 Iowa
 Glycofrides, Eustace
 Greece
 Godhold, Albea
 Mississippi
 Godfrey, Clarence M.
 District of Columbia
 Goehring, Richard E.
 Pennsylvania
 Goodall, Alfred B.
 District of Columbia
 Goss, Marshall J.
 Ohio
 Gould, Mrs. Irene M.
 Alabama
 Grady, Jennie
 District of Columbia
 Graham, Jeane
 Missouri
 Granger, Elizabeth M.
 Missouri
 Grass, Edward J.
 District of Columbia
 Gravatt, Frances
 Maryland
 Greeley, Arthur E.
 District of Columbia
 Greene, Lemuel E.
 Louisiana
 Greenup, Nell
 Missouri
 Gress, Howard Dewey
 Pennsylvania
 Grossman, Herbert R.
 Kentucky
 Guanella, Frances
 Iowa
 Guffy, Mabel
 North Carolina
 Guilford, Anne
 District of Columbia
 Guilford, Charles C.
 Virginia
 Gunter, Dorothy
 Alabama
 Hadlick, Elwin E.
 Minnesota
 Hadlick, Paul E.
 Minnesota
 Hagan, J. Foster
 Virginia
 Haldeman, D. L.
 Pennsylvania
 §Hale, Inez E.
 Ohio
 Hall, Wallace L.
 District of Columbia
 Hamilton, Bonifant
 M. S. George Washington Uni-
 versity
 District of Columbia

- Hammond, Leigh Mead
Maryland
- Hamric, Ethel M.
Virginia
- Handy, Jessie B.
District of Columbia
- Hane, Grace E.
Illinois
- Hannah, George M.
New Jersey
- Hanson, Edward J.
North Carolina
- Harbert, Agnes
West Virginia
- Harter, Robert G. W.
Missouri
- Hawty, Lawrence F.
Louisiana
- Harnsberger, Charles W.
Virginia
- Harris, Phillip R.
Indiana
- Harris, Samuel B.
Iowa
- Harris, Mrs. Sophia V.
District of Columbia
- Harrison, Arthur P.
Maryland
- Harrison, Miss Calhoun
Alabama
- Harrison, Margaret T.
New Jersey
- Harrison, Mary I.
District of Columbia
- Hart, Sara T.
District of Columbia
- Hauke, Edna E.
District of Columbia
- Haverstock, George M.
Pennsylvania
- Haynes, John L.
District of Columbia
- Hays, Elizabeth
West Virginia
- Hazell, Joseph William
District of Columbia
- Headley, Holland G.
Minnesota
- Heal, Bernice I.
Indiana
- Hesley, Robert B.
New York
- Hockett, George T.
West Virginia
- Hedden, Eva M.
Indiana
- Hedden, Ruth
Indiana
- Heid, Edwin
District of Columbia
- Heist, LeRoy E.
District of Columbia
- Henderson, Edward P.
Ohio
- Henderson, Elnora
District of Columbia
- Henkin, Benjamin
District of Columbia
- Henry, Kathryn
Pennsylvania
- Herman, Eliza Jane
Michigan
- Herndon, Charles A.
A. B., 1912, Center College
Kentucky
- Herrington, Margaret Carson
District of Columbia
- Hersey, Samuel P.
Iowa
- Hessler, Agnes B.
District of Columbia
- Hicks, Arthur J.
Michigan
- Hicks, Elizabeth
North Carolina
- Hill, Alice Fenwick
District of Columbia
- Hillerman, Mary P.
Illinois
- Hillig, Fred H.
Illinois
- Hinds, Ethel
District of Columbia
- Hines, Ruth G.
Massachusetts
- Hoffman, David
Illinois
- Hoffman, Herman S.
Maryland
- Hogan, Alda
North Carolina
- Hollis, Lawrence Coe
Virginia
- Holmes, Kathleen
A. B., Randolph-Macon Women's
College
District of Columbia
- Holmes, Oliver W.
District of Columbia
- Holsinger, Ernest J.
Indiana
- Homan, Lester P.
Ohio
- Howard, Deane C.
District of Columbia
- Howard, Forrest K.
Virginia
- Huber, Josephine
District of Columbia
- Huebner, E. H.
Ohio
- Humphrey, Omar C.
Minnesota
- Hunt, Ada M.
District of Columbia
- Hunter, Anna M.
Ohio
- Hunter, Mrs. Ella B.
Mississippi
- Hyman, Mrs. Sadie Z.
District of Columbia
- Hynes, William J.
Mississippi
- Ivey, Edward
District of Columbia
- Jackson, Franklin J.
District of Columbia
- Jacobs, Alfred
Oregon
- Jansen, R. J.
Minnesota
- Janson, Mildred
Ohio
- Jefferis, William Herbert
District of Columbia

- Jeffers, Claribel
 Alabama
 Jenkins, Gladys
 Ohio
 Jensen, Emma A.
 Illinois
 Jett, J. Malcolm
 District of Columbia
 Jewett, Elizabeth
 New York
 Johnson, Alva H.
 Michigan
 Johnson, Edward H.
 Texas
 Johnson, Russel M.
 Minnesota
 Johnson, William J.
 Massachusetts
 Jones, Ellsworth D.
 Virginia
 Jones, Evelyn W.
 District of Columbia
 Jones, F. Marion
 Kansas
 Jones, Mrs. Marie McM.
 A. B. George Washington Uni-
 versity
 Washington
 Jones, Mildred E.
 District of Columbia
 Judd, Eleanor C.
 Indiana
 Kampe, Albert H.
 Michigan
 Katopothis, Steven A.
 District of Columbia
 Katezenbach, Howard B.
 Pennsylvania
 Kauffman, Harvey E.
 Pennsylvania
 Kauffman, James L.
 Pennsylvania
 Keane, Maurice J.
 District of Columbia
 Keene, Henry C.
 LL. B. and LL. M., National
 University Law School
 California
 Keesacker, Ward W.
 West Virginia
 Kendrick, Miss Nell
 Georgia
 Kennedy, Clara E.
 Iowa
 Kesler, Mrs. Lora W.
 New York
 Kincaid, Calvin B.
 Alabama
 King, William B.
 Virginia
 Kingsbury, Dorothy E.
 Michigan
 Kirsch, Leon
 New York
 Kielink, David E.
 District of Columbia
 Klein, Isobel
 LL. B., Cumberland University
 Arkansas
 Knisely, Edna
 Indiana
 Kranichuck, George E.
 Massachusetts
 Krause, Edward A.
 Kansas
- Kronheim, Meryl
 District of Columbia
 Kryshak, Rose
 Wisconsin
 Kotz, Miriam L.
 Indiana
 Lamm, Elizabeth H.
 District of Columbia
 Lane, Lydia A.
 New Jersey
 Lane, Eleanor
 Virginia
 Lane, Rufus H.
 District of Columbia
 Lang, Richard J.
 New York
 Lange, Edwin
 District of Columbia
 Lange, Otilie M.
 Arizona
 Lanigan, Arthur L.
 District of Columbia
 Lashlee, Norma
 A. B., Cumberland University
 Tennessee
 Leedy, Nellie Grace
 Missouri
 Lehman, Percy B.
 Maryland
 Lester, Mary M.
 Virginia
 Lewis, Ollie L.
 M. S., George Washington Uni-
 versity
 Kentucky
 Lewis, Robert S.
 District of Columbia
 Lewis, Stuart
 LL. B., John Marshall Law
 School; D. C. L., Arkansas
 Law School
 Illinois
 Limper, Ernest
 Indiana
 Lindow, Oscar H.
 Wisconsin
 Lindsay, Ruth
 Maryland
 Lindsay, Irving
 Virginia
 Linthicum, William A.
 Maryland
 Loeffler, Hyman
 Virginia
 Loelsch, Louise A.
 District of Columbia
 Loomis, Helen May
 New York
 Loux, Lloyd F.
 Pennsylvania
 Love, Ruby
 Missouri
 Luens, Bertha L.
 District of Columbia
 Lundstrom, Frank O.
 Colorado
 Lynn, Wallace P.
 District of Columbia
 McAndrews, Joseph B.
 Tennessee
 McCarty, Oneta
 Washington
 McCauly, Katherine
 District of Columbia

- McChesney, Frank M.
 New York
 McClure, Dora
 Pennsylvania
 McClurg, Alice
 Indiana
 McCollum, Ruth
 South Dakota
 McConkey, Margaret
 Montana
 McConkey, Montgomery W.
 North Dakota
 McCormick, John D.
 District of Columbia
 McCoy, John Scott
 District of Columbia
 McDannel, Lucy
 District of Columbia
 McGann, Mabel Williams
 Indiana
 McKay, Elmer
 Maine
 McKendree, Laurette
 New Hampshire
 McKenzle, Doris
 District of Columbia
 McMillan, Lucile
 Tennessee
 McLeod, Martha R.
 North Carolina
 MacLeod, Mary B.
 B. L., Flora McDonald College.
 N. C.
 North Carolina
 McGruder, Mrs. Helen
 Maryland
 Mahoney, John
 Nebraska
 Manning, Lee C.
 Maryland
 Manning, Mrs. Lucy
 LL. B., George Washington Uni-
 versity
 Oklahoma
 Markley, Mae Adelle
 District of Columbia
 Marks, Frank H.
 District of Columbia
 Mariowe, Mabel
 Kansas
 Marriotte, N. A.
 Maryland
 Martin, Louis W.
 North Dakota
 Martin, May P.
 Texas
 Martin, Thomas G.
 Utah
 Mathews, Alma L.
 Pennsylvania
 Mattison, Dorothy
 Vermont
 Mayer, Joseph A.
 Pennsylvania
 Mehring, A. L.
 Pennsylvania
 Middour, Emery J.
 Lit. B., Princeton University
 Pennsylvania
 Miller, Ralph P.
 Pennsylvania
 Mills, Elizabeth B.
 District of Columbia
 Mills, Mrs. Mary S.
 District of Columbia
- Moeller, Otto
 New York
 Moore, Estelle Holmes
 Virginia
 Moore, Frank D.
 LL. B., University of Virginia;
 A. B., George Washington Uni-
 versity; A. M., George Wash-
 ington University
 Kentucky
 Morawski, Arthur L.
 Massachusetts
 Morgan, Sidney
 Pennsylvania
 Morrow, Clara
 District of Columbia
 Moss, Maud V.
 Virginia
 Mottern, Alfred J.
 Ohio
 Moulton, Edward B.
 Illinois
 Moulton, George F.
 Illinois
 Moxness, Bennie A.
 North Dakota
 Moylan, William Stanton
 Pennsylvania
 Mulligan, Alethea W.
 New York
 Murdaugh, J. E. D.
 A. B., University of Virginia
 District of Columbia
 Murphy, Bertram J.
 Pennsylvania
 Murray, J. Florence
 District of Columbia
 Muse, Frank A.
 North Carolina
 Messersmith, Eva
 Virginia
 Mussman, Michael A.
 Pennsylvania
 Nall, Arthur E.
 Texas
 Nalley, Ella Q.
 Maryland
 Naylor, Theodore H.
 Pennsylvania
 Neelans, Rebecca
 Pennsylvania
 Nelson, Della B.
 North Dakota
 Nelson, Lorin E.
 Rhode Island
 Newlove, Iva del E.
 North Dakota
 Newman, Harry Wright
 Alabama
 Newman, Miss Linn A.
 Indiana
 Newman, Raymond W.
 California
 Nichols, Stanley W.
 Illinois
 Nicholson, Jennie E.
 New York
 Nicol, Mary B.
 Maryland
 Nielsen, Joseph N.
 B. S. in Arch., George Washing-
 ton University, 1911
 Illinois
 Nimetz, Aaron
 District of Columbia

- Noonan, Margaret
Illinois
- Norris, Mrs. Bertha C.
New York
- §Norton, Clyde A.
District of Columbia
- §Norton, Frederick A.
B. S., Harvard University
Massachusetts
- §Norwood, F. J.
District of Columbia
- Notes, Bernard
District of Columbia
- Nutter, Virbrook
A. B., 1920, Washington Mission-
ary College
Maryland
- Oden, Verna
B. A., Mississippi Woman's Col-
lege
Mississippi
- §Ogden, Vivian
Missouri
- §Oldham, Elizabeth G.
Florida
- Oliver, Estelle I.
Texas
- Osterman, Lilly
Missouri
- Ottenberg, Gilbert
District of Columbia
- Packer, Earl L.
Utah
- Palmer Clive W.
Maryland
- Palmer, J. Joseph W.
District of Columbia
- §Palomar, Gaudioso P.
Philippine Islands
- Pamintuan, Caridad (Miss)
Philippine Islands
- Pamintuan, Paz (Miss)
Philippine Islands
- Parker, Evelyn
Vermont
- Parker, Sara Jay
Maryland
- Patterson, Homer S.
Georgia
- Paxton, M. Annabel
Virginia
- Pazour, Marie A.
South Dakota
- Peake, Isadore A.
District of Columbia
- Pedigo, Florence E.
Virginia
- Pelcoe, Lottie M.
Maryland
- §Pelcoe, Louise
California
- Perdue, Thomas F.
Georgia
- §Perelma, Ossip
Russia
- Perlman, Rebecca
District of Columbia
- Perry, Aneva
M. A., University of Pennsyl-
vania
District of Columbia
- Peterson, Gustave A.
Connecticut
- Peterson, William W.
Iowa
- Peterson, Robert Karl
District of Columbia
- Pettit, Wayne V.
Mississippi
- Pfeiffer, Frances E.
Indiana
- §Pfeender, Mrs. Mary
District of Columbia
- Phillips, Bernhardt
District of Columbia
- Piekerling, Grace
Indiana
- Pim, James H.
Colorado
- Pixley, Catherine H.
Michigan
- Pixley, Rex A.
Michigan
- Poindexter, Mattie
Kentucky
- Poindexter, William D.
Virginia
- Plessinger, Martha M.
Indiana
- Porter, Bessie J.
Nebraska
- Portner, Charles W.
Ohio
- Porter, Etta C.
New York
- §Porter, George B.
Iowa
- Porton, Stanley P.
District of Columbia
- Potter, Harold W.
District of Columbia
- Power, Ralph L.
B. B. A. and M. B. A., Boston
University
California
- Poynton, Edward A.
District of Columbia
- §Prescott, Olive
District of Columbia
- Preston, Willard F.
District of Columbia
- Price, David J.
Pennsylvania
- Proschold, Wanda A.
California
- Protas, Maurice
District of Columbia
- Putnam, Amy D.
New Jersey
- Quay, Mabel
Texas
- Rafter, Agda
Indiana
- Ramsey, Osman
Virginia
- Randall, Bernice D.
District of Columbia
- §Rauber, Walter
New York
- Rayer, Irene
Indiana
- Reed, Paul C.
Louisiana
- Reed, Russell Bauer
New Jersey
- Rees, Thomas R.
A. B., 1919, George Washington
University
- Utah

- Reese, William E.
 West Virginia
 Reeve, Laura
 District of Columbia
 Reilly, John J.
 Connecticut
 Reitzell, Albert E.
 A. B., George Washington Uni-
 versity, 1920
 North Carolina
 Rench, Robert B.
 District of Columbia
 Renshaw, Mrs. Annie T.
 North Carolina
 Reynolds, Francis C.
 District of Columbia
 Reynolds, Robert E.
 Illinois
 Rice, Randolph Packard
 Pennsylvania
 Richardson, Elizabeth L.
 District of Columbia
 Riley, Albert A.
 Ohio
 Riffenburg, Harry B.
 A. M., University of Denver
 Colorado
 Rister, Carl C.
 A. B., Simmons College
 Texas
 Roat, Anna L.
 New York
 Roberts, Gertrude
 Ohio
 Rogers, Mrs. Florence H.
 District of Columbia
 Rogers, Herbert O.
 Colorado
 Rogers, Joseph H.
 Maryland
 Rogers, Maud H.
 Virginia
 Rommell, George F.
 District of Columbia
 Rooney, William F.
 Massachusetts
 Rose, Mary E.
 District of Columbia
 Rosenblatt, Louis
 New York
 Ross, Cecil L.
 A. B., Washington Missionary
 College
 West Virginia
 Ross, Frances P.
 Virginia
 Rotzler, William M.
 Utah
 Rowland, Miss M. Elston
 Tennessee
 Royer, Charles E.
 Pennsylvania
 Rubino, Anthony P.
 New York
 Rue, Harold P.
 Pennsylvania
 Ryan, Richard L.
 District of Columbia
 Sabella, R. H.
 Philippines
 Sanborn, Norris H.
 District of Columbia
 Sandborn, Elizabeth E.
 Kansas
- Sapp, Lucy
 West Virginia
 Savage, Grace
 Texas
 Sawyer, Vera C.
 New York
 Schmitt, Mary A.
 District of Columbia
 Schmitt, Edwin A.
 Maryland
 Schwartz, William W.
 District of Columbia
 Scott, Pauline
 District of Columbia
 Seward, Doris
 Vermont
 Shafer, William
 New York
 Shah, P. F.
 China
 Sharp, Ivor
 B. S., Utah Agricultural College
 Utah
 Shea, E. C.
 South Dakota
 Shea, Frances
 District of Columbia
 Shen, James W.
 New Jersey
 Sheehan, Bernadette
 District of Columbia
 Sheehan, Nora
 District of Columbia
 Sheffield, Edgar L.
 Idaho
 Sheldon, Capt. Harold P.
 Vermont
 Shepherd, Marguerite
 Arkansas
 Sherman, Ralph W.
 New Jersey
 Schenfler, Edward L.
 Kansas
 Shine, Archie E.
 Virginia
 Shotwell, Clarence L.
 Virginia
 Shoultes, Marvin A.
 New Jersey
 Sillers, Frederick
 District of Columbia
 Silvester, Jane B.
 District of Columbia
 Simpson, Edward L.
 Maryland
 Slater, George A.
 District of Columbia
 Sligh, John H.
 A. B., Newberry College, S. C.
 South Carolina
 Smallwood, Graeme T.
 District of Columbia
 Smith, Miss Ardis
 Iowa
 Smith, Audley L.
 Iowa
 Smith, Benjamin H.
 A. B., Wabash College
 Indiana
 Smith, Edna S.
 Michigan
 Smith, Hazel E.
 Indiana
 Smith, Hugh S.
 District of Columbia

- Smith, Mrs. Isabelle Geddes
District of Columbia
- Smith, Katharine
B. S., Florida State College
Florida
- Smith, Maurice M.
Oklahoma
- Smithdeal, Mrs. Elizabeth
Florida
- Sours, Frances Leola
Pennsylvania
- Solem, Joseph A.
South Dakota
- Sondergaard, Aressa E.
Minnesota
- Sorber, D. Glenn
Washington
- Sowershy, Ora A.
Kansas
- Sperry, Albert
Florida
- Spelman, Marlon
District of Columbia
- Spivy, Douglas
Texas
- Spofford, Harriet
Virginia
- Spurr, Frank A.
Iowa
- Stadler, Robert R.
Texas
- Stallins, Mildred E.
District of Columbia
- Stanton, William Henry
District of Columbia
- Steele, Mrs. Hester R.
Maryland
- Sterling, Norris Virginia
Maryland
- Stewart, Catherine
Virginia
- Stewart, Elwinna
Ohio
- Stewart, Mabel
B. S., Kansas State College
Oklahoma
- Stillings, Marie
West Virginia
- Stirien, Eugene D.
Iowa
- Stoen, Bennett A.
Minnesota
- Stretch, James E.
Connecticut
- Sullivan, Angela C.
Maryland
- Sullivan, Thomas R.
Minnesota
- Surael, Frank
District of Columbia
- Surael, Xaverius
District of Columbia
- Swanson, Edna M.
Minnesota
- Swearinger, Anita M.
Indiana
- Sweeney, James J.
Massachusetts
- Swem, Lee A.
District of Columbia
- Symons, Arthur
Michigan
- Sze, Miss Wai-Ling
China
- Taber, Blanche
North Carolina
- Tallman, Harry A.
Missouri
- Tansil, Rebecca C.
Tennessee
- Tapler, Gladys
Alabama
- Taylor, Anabel
Alabama
- Taylor, Bertha E.
New Jersey
- Teller, Leslie W.
District of Columbia
- Temin, Morris
District of Columbia
- Templeton, Francis H.
LL. B., University of North Dakota
North Dakota
- Thigpen, Virginia
District of Columbia
- Thomas, Lisle
A. B., George Washington University
Michigan
- Thompson, Maud A.
Colorado
- Thorne, Maurice A.
Minnesota
- Thornhill, Annie C.
Virginia
- Thour, Emily A.
District of Columbia
- Thurber, Mildred Ellen
New York
- Tibbitts, Gordon C.
Maryland
- Tice, Howard M.
Pennsylvania
- Tilton, Fletcher Sanford
District of Columbia
- Tilton, LeRoy W.
Texas
- Tolms, Alexander
Wisconsin
- Tolson, Clyde A.
Iowa
- Tolson, Hillary A.
Iowa
- Tompkins, W. J.
Georgia
- Tonce, Catherine W.
District of Columbia
- Towsley, Alice M.
Maine
- Tracey, Stanley J.
Utah
- Trotter, Katharine E.
District of Columbia
- Trundle, Mary
District of Columbia
- Tuskey, Margaret M.
District of Columbia
- Turner, Bolon B.
Arkansas
- Turner, Grace
Indiana
- Turner, Marie A.
North Carolina
- Turner, Pattie M.
North Carolina
- Tynges, Charles H.
North Carolina
- Udell, Lida J.
District of Columbia
- Van Doren, Lurana
District of Columbia

- Van Natta, Paul C.
 Missouri
 Vickers, Rose M.
 District of Columbia
 Villanueva, Paterno
 Philippines
 Vliet, Andrew M.
 Indiana
 Waddell, Elizabeth F.
 Georgia
 Wagonseller, Earl A.
 Illinois
 Wailes, Raymond B.
 District of Columbia
 Waldon, M. Agnes
 Pennsylvania
 Walker, Effie L.
 Mississippi
 Walker, Ferris
 District of Columbia
 Walker, Louise
 Georgia
 Wallace, Bryan E.
 Iowa
 Walsh, John B.
 Montana
 Walton, Delvy T.
 Utah
 Wang, Voory Ung
 China
 Waring, Martha L.
 District of Columbia
 Warner, Russell A.
 Michigan
 Warner, Wellman J.
 California
 Waterman, Bernice
 Michigan
 Washburn, Charlotte
 New York
 Watson, Durema
 North Carolina
 Watson, John Alfred
 Maryland
 Wendon, Leafy
 Virginia
 Webb, Edward F.
 Maryland
 Weber, Elizabeth A.
 New York
 Weber, Georges M.
 District of Columbia
 Weber, Henry M.
 Pennsylvania
 Weckerly, Louise
 Maryland
 Weeks, Norman E.
 District of Columbia
 Weisandt, Harry Nicolai
 South Dakota
 Welling, Cuyler
 Maryland
 Welsh, Leo L.
 Iowa
 Welch, T. F.
 Utah
 Welty, Raymond L.
 D. S., Fort Hays, Kansas, Normal School
 Kansas
 Wheland, Norman D.
 Massachusetts
 Whalin, Edward
 Pennsylvania
 White, Milo R.
 Indiana
 Whitson, Alice I.
 B. S., State College, N. C.
 North Carolina
 Whyte, Russell I.
 District of Columbia
 Wiard, George Clark
 Virginia
 Wiles, Walter E.
 North Carolina
 Wilhite, Dorothy
 District of Columbia
 Wilks, Van B.
 Missouri
 Wilcox, Mrs. Emma P.
 District of Columbia
 Willey, Harold B.
 Oregon
 Williams, Ernest F.
 District of Columbia
 Williams, Felicia
 M. A., George Washington University, 1920
 Florida
 Williams, Harriet M.
 Pennsylvania
 Williams, Hazel F.
 Indiana
 Williams, Oliver
 Ohio
 Williams, Paul S.
 Virginia
 Williamson, Margaret
 Virginia
 Williamson, Wynter, W.
 Illinois
 Willis, Benjamin C.
 Maryland
 Wimmer, Joseph C.
 Pennsylvania
 Winkler, J. Homer
 District of Columbia
 Winston, Sarah
 Texas
 Wiseheart, Malcolm
 Illinois
 Wolcott, Jessie
 Iowa
 Wolf, Frances
 District of Columbia
 Wolf, Harry
 District of Columbia
 Wolf, Morris
 District of Columbia
 Wolt, Helen
 Nebraska
 Wood, John Sumner
 Massachusetts
 Woodward, Clarence M.
 Michigan
 Wormser, Hazel M.
 Kansas
 Wright, Ethel
 Virginia
 Yagle, Irma
 Alabama
 Yates, Frank L.
 West Virginia
 Young, Mrs. Evelyn H.
 South Dakota
 Young, George W.
 Pennsylvania
 Young, Grover C.
 South Dakota
 Yurow, David
 District of Columbia
 Zirkle, Vernon B.
 Virginia

SUMMARY

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SUMMARY GRADUATE STUDENTS

Students in attendance.....	40
Candidates for S. M. Degree.....	37
Candidates for A. M. Degree.....	165
Candidates for Ph. D. Degree.....	48
Candidates for C. E. Degree.....	1
Candidates for M. E. Degree.....	2
	<hr/> 223

UNDERGRADUATE STUDENTS

Columbian College

Candidates for A. B. Degree.....	1162
Candidates for B. S. in Med. Degree.....	48
Pre-Medical	83
Special	667
	<hr/> 1960

College of Engineering

Candidates for B. S. in Arch Degree.....	28
Candidates for B. S. in Chemistry Degree.....	50
Candidates for B. S. in Ch. E. Degree.....	48
Candidates for B. S. in C. E. Degree.....	96
Candidates for B. S. in M. E. Degree.....	88
Candidates for B. S. in E. E. Degree.....	79
Special	153
	<hr/> 540

Teachers College

Candidates for A. B. and Teacher's Diploma.....	280
Special	28
	<hr/> 308

Professional Schools

Medical School	113
School of Pharmacy	14
Law School	808
Total	<hr/> 935
Duplicates	48
	<hr/> 887

SUMMER SCHOOL 1920

Summer School, Arts and Sciences.....	783
Summer School, Law	270
	<hr/> 1053

MEDICAL SCHOOL

CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE

An asterisk (*) before a name indicates student not in attendance through year.

FIRST YEAR

Angell, Howard Webb	Va.	1241 New Jersey Avenue
Ballinger, William McCormick	D. C.	1489 Newton Street
Batchelor, John Justice	Calif.	1189 12th Street
*Borrone, Milton George	N. J.	1825 H Street
Blum, Henry Harry	N. Y.	1334 7th Street
Bosworth, Robert Joseph	D. C.	528 5th Street, N. E.
Brilmyer, George Joseph	D. C.	45 O Street
B. S., M. S.		
Butler, Homer Kirk	D. C.	2100 11th Street
Phar. D.		
Chiascione, Rocco Michael	N. Y.	1180 8th Street
B. S.		
Chilson, Howard Carlos	Md.	22 Lincoln Avenue
A. M.		
Cohen, Roger Stahl	D. C.	2146 Wyoming Avenue
Litt. B.		
Colon, Ramon Tomas	P. R.	1110 M Street
Deep, Anthony Abraham	D. C.	901 H Street
Duffey, Hugh Clarence, Jr.	D. C.	929 O Street
Esteves, Juan	P. R.	1881 K Street
Gelfand, Harry Harold	N. Y.	8420 Warder Street
Haynes, William Preston	Ky.	1388 15th Street
Hedgecock, Elaine Ruthe	D. C.	225 Oak Avenue. Takoma
A. B.		
Hewitt, Richard Miner	Conn.	Park, D. C.
A. B., A. M.		
Harding, James Sylvester	Pa.	909 18th Street
Hoffman, Herman Solomon	Md.	Brentwood, Md.
Johnson, William Joseph	Mass.	232 1st Street, S. E.
Karshmer, Nathan	N. J.	1834 7th Street
*Larrain, Abel R.	Peru	Peruvian Embassy
Little, John Franklin, Jr.	Ga.	141 A Street, N. E.
Malone, Lillian	Va.	Alexandria, Va.
McChesney, Frank Marks	D. C.	129 Randolph Place
McGuffey, Anthony	N. J.	1114 M Street
*Massey, William Joseph	N. C.	
Maui, Sarah Elizabeth	D. C.	1831 K Street
A. B.		
Montgomery, Jimmie Ethel	Ala.	3608 New Hampshire Avenue
A. B.		
Mulligan, Charles Steven	N. Y.	1110 M Street
Navarro, Vincente Aquire	P. I.	2325 New York Avenue
A. B.		
Oliveras, Artajerjes	P. R.	1234 I Street
Perkins, Hanson Travers	Md.	Springfield, Md.
B. S.		
Plotnick, Barney	Va.	1540 7th Street
Ottenberg, Gilbert	D. C.	1243 7th Street
Porton, Stanley Paul	D. C.	1828 11th Street
Rachlis, Burech	Pa.	222 Eye Street
Rambo, Golden Samuel	D. C.	807 Carroll Avenue. Takoma
		Park, D. C.
Rees, Thomas Richard	D. C.	Rutland Courts
A. B.		
Rosenblatt, Louis		1410 Crittenden Street
Rouse, Noah	N. C.	1219 K Street
Rubinstein, Rudolph	N. J.	1444 Oak Street
Russell, John Paul	D. C.	917 6th Street
Sapinera, Frank	N. Y.	1124 8th Street
Seart, Howard A.	Ohio	1728 N Street
A. B.		
Shannon, William Arthur	D. C.	1528 9th Street
Solnitzky, Othmar	Canada	1110 M Street
A. B., A. M., Ph. D.		

Somerville, Louis Randolph	D. C.	3904 Huntington Street
Stein, Joseph	N. Y.	222 I Street
Swartwout, Edith Lillian	D. C.	12 Iowa Circle
Zitani, Alfred Marins	N. J.	1124 8th Street

SECOND YEAR CLASS

Bourstin, William	N. Y.	Casualty Hospital
Brown, Radford	D. C.	The Ashley Apartments
Dean, Benjamin Franklin, Jr.	D. C.	916 Massachusetts Avenue
Earnest, John Paul, Jr.	D. C.	2128 N Street
A. B.		
*French, Leslie Hawson	Pa.	1325 H Street
Harnsberger, Charles Whitfield	Va.	Roslyn, Va.
Hodgkins, Bradley Duncan	D. C.	1623 R Street
Horwitz, Alec.	D. C.	916 4½ Street
A. B.		
Kain, Helen Gladys	D. C.	129 E Street
McClosky, William Thomas	D. C.	1432 U Street
Moody, Terrell	Ga.	115 B Street, N. E.
A. B.		
Poster, Russell Herbert	Pa.	815 L Street
Reichman, Benjamin	N. Y.	1410 Crittenden Street
Skoretzky, Irving Daniel	N. Y.	755 Harvard Street
Stuart, Marjorie Shaw	D. C.	1315 12th Street
Wanlass, Stanley A.	Utah	1956 Calvert Street
A. B.		

THIRD YEAR

Bradley, Grover O.	D. C.	1448 Girard Street
A. B.		
Brand, Loula Christian	Va.	1323 10th Street
Brooke, Deane Francis	N. Dak.	9 H Street, N. W.
Cole, Hazen Eugene	D. C.	639 East Capitol Street
Cudney, Ethan B.	Mich.	2823 14th Street
Davis, Joshua William	Pa.	2832 F Street
Gaines, John Marshall	Va.	Alexandria, Va.
Gates, Herbert Stelwyn	D. C.	808 North Carolina Avenue, S. E.
Goldfain, Samuel	Colo.	1115 5th Street
Jones, Robert Varnum	Mich.	2445 18th Street
Nordlinger, George	D. C.	3115 N Street
A. B.		
Peterson, Norman Vern	Utah	The Calumet Apartments
B. S.		
Reed, John Alton	D. C.	629 Princeton Street
Sager, William Warren	D. C.	2823 14th Street
A. B.		
Taylor, Robert Mitchell	D. C.	607 North Carolina Avenue, S. E.

FOURTH YEAR

Alpert, Louis Myer	Conn.	1118 12th Street
Beck, Richmond James	Wis.	The Ventosa
Bowen, Wilbur Lorenzo	Va.	1654 Hobart Street
Branes, Alfred Mario	C. A.	1424 Rhode Island Avenue
A. B.		
Cadilla, Arturo	P. R.	1234 I Street
Castro, Herman Rawson	C. A.	1024 18th Street
A. B.		
Demopoulos, Christos John	Greece	804 K Street
A. B.		
Dunsky, Frank	N. Y.	1320 L Street
Einstein, Nathan Joshua	D. C.	946 Rhode Island Avenue
Eisinger, Walter George, Jr.	D. C.	3803 Wisconsin Avenue
Fischer, Aubrey Davis	D. C.	The Hadleigh Apartments
Franke, Frederick Arnold	Utah	1345 H Street
B. S.		
Glenn, Joseph Burton	D. C.	1438 Meridian Place
Gwynn, Ray Frederick	Va.	Woodlawn, Va.
Herzmark, Maurice Har	D. C.	2927 Tilden Street
A. B.		
Hopkins, Ira Jay	Utah	115 2nd Street, N. E.
A. B.		

Johnson, Regena Cook	Md.	1814 G Street, N. W.
Maehlan, Harold Foor	D. C.	Takoma Park, D. C.
Masson, Clement Buchanan	N. Y.	1822 Vermont Avenue
Marchena, Ricardo	C. A.	1424 Rhode Island Avenue
A. B.		
Millan, Lyle Jordan	Va.	1822 Vermont Avenue
Phillips, John William	N. C.	880 12th Street
Renner, Maurice Jacob	D. C.	1118 13th Street
Slutsky, Ben Lloyd	Conn.	1820 L Street
Schultz, Charles Hamilton	Pa.	1822 Vermont Avenue
Sesta, Joseph	N. J.	1812 G Street
Ph. G., Ph. C.		
Sonneland, Sidney Taylor	Nebr.	1822 Vermont Avenue
B. S.		
Strongin, Herman F.	D. C.	1736 G Street
Ph. G., Ph. C.		
Tibbets, Lyman Brooke	D. C.	1626 17th Street
Phar. D.		
Williamson, Fred Yates	N. C.	G. W. U. Hospital
Phar. D.		

SPECIAL

Haynes, Winston River	Va.	2118 G Street
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SUMMARY

First Year	53
Second Year	16
Third Year	15
Fourth Year	30
Special	1

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STUDENTS ENROLLED IN THE COLLEGE OF PHARMACY
1920-1921

Name	Legal Residence	Address
Clayton, W. F.	Md.	P. O. Box 553, Annapolis, Md.
Dyer, Chas. F.	D. C.	116 V Street, N. W.
Freeman, Julian D.	D. C.	2328 Georgia Avenue, N. W.
Cassett, McKinley	D. C.	U. S. Naval Hospital.
Heller, Wm. L.	D. C.	407 2nd Street, N. W.
Lynch, Marcus F.	D. C.	128 East Capitol Street.
Norris, Betty Elena	Va.	1117 Pine Street, Alexandria.
O'Donnell, A. D.	D. C.	8th and G Streets, S. E.
Schnider, Abe	D. C.	623 Quebec Street, N. W.
Summers, Chas. W.	Va.	901 Duke Street, Alexandria.
Warfield, Edgar A.	Va.	119 Walnut Street, Alexandria.

STUDENTS REGISTERED IN THE LAW SCHOOL

1920-1921

Names of students who have withdrawn or graduated are indicated by stars; those who have entered since January 31, 1921, by daggers.

Students who are college graduates are indicated by the degree, year in which it was received, and name of college conferring it.

Students who have had only part of a college course are indicated by the names of the colleges attended.

CANDIDATES FOR DEGREE OF BACHELOR OF LAWS

First Year Class

Name	Legal Residence	Address
Altschul, Arthur	D. C.	1440 Meridian Place, N. W.
Anderson, Joseph Nelson	Va.	60 Randolph Place, N. W.
Anderson, Robert Nelson	Va.	60 Randolph Place, N. W.
George Washington University		
*Angney, Norman Reineman	D. C.	2010 15th Street, N. W.
A. B., 1919, University of Pittsburgh		
Armstrong, Elizabeth Wetmore	Conn.	2017 19th Street, N. W.
Ashman, John Henry	Wash.	121 11th Street, N. E.
George Washington University		
Audas, Edith Ruth	N. Y.	3444 Mt. Pleasant Street, N. W.
A. B., 1915, Syracuse University		
Babcock, George Woodman	D. C.	2800 Connecticut Avenue
†Bailey, Elizabeth Margaret	Md.	5 E. Irving Street, Chevy Chase
A. B., 1919, Vassar College		
*Baines, Thelma Anna	D. C.	Lanham, Maryland
†Baker, Floyd Jennings	D. C.	3921 McKinley Avenue, Chevy Chase
Baker, Paul Hamilton	Pa.	1422 Massachusetts Avenue, N. W.
*Balster, Charles Kohler	D. C.	624 Eye Street, N. E.
*Barnard, Philip Esery	D. C.	1401 21st Street, N. W.
Exeter College, Eng.		
*Barnes, Harold Arthur	D. C.	725 Quebec Place
Barnhill, Josephine Mary	D. C.	1017 15th Street, N. W.
Barr, Joseph Fischer	Mass.	1734 T Street, N. W.
Barrett, Joe Clifford	D. C.	1744 Riggs Place, N. W.
A. B., 1920, University of Arkansas		
Barta, Adolf E.	Iowa	634 5th Street, N. E.
Basseches, Jacob Thomas	N. Y.	1814 Riggs Place
A. B., 1920, George Washington University		
Bell, Alexander Hamilton, Jr.	D. C.	1726 M Street, N. W.
Herman, Louis Hyman	D. C.	1240 7th Street, N. W.
George Washington University		
*Berry, Charlissa	Md.	A-B Building, Gov't Hotel
Bingaman, Clara Merrick	Iowa	1649 Lamont Street, N. W.
Highland Park College; State University of Iowa		
Bird, James Frederick	D. C.	1817 F Street, N. W.
Maryland State College		
Birmingham, Charles Henry	D. C.	1733 N Street, N. W.
*Blackstone, Richard Somerville	D. C.	537 Quincy Street, N. W.
†Blake, Ida Vincent	Ohio	N-O Building, Gov't Hotel
Ohio State University; Adrian College		
Blakely, Charles Francis	Nebr.	1786 G Street, N. W.
B. S. in C. E., 1920, George Washington University		
Boudinot, Frank J., Jr.	Okla.	Northbrook Courts
*Bowers, John Otto	Ind.	1410 Belmont Street, N. W.
†Bowles, Jack Paul Fletcher	Okla.	230 1st Street, S. E.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
Bradley, Frederick Moffat	D. C.	1801 28th Street, N. W.
Bromberg, John Louis	Ala.	1748 G Street, N. W.
University of the South; George Washington University		
Brown, Agnes Marjorie	Iowa	G-H Building, Gov't Hotel
Iowa State College		
Brown, C. Howard	Md.	Bladensburg, Md.
*†Brown, Franklin Wilson Ross	Nebr.	Marine Barracks, D. C.
University of Nebraska		
†Brown, Mae Robertson	N. J.	618 Princeton Place
Brown, Virginia May	Ala.	The Congressional
Hollins College		
Browning, Roy Wheeler	N. C.	1802 Connecticut Avenue
Buckner, Robert William	Kans.	1123 Euclid Street, N. W.
A. B., 1917, Fairmount College		
Burdick, Bernard Franklin	Ala.	1722 N Street, N. W.
University of Chattanooga; George Washington University		
Burke, Ellen Teresa	D. C.	381 Jefferson Street, N. W.
A. B., 1916, George Washington University		
*Burnham, Clint Kline	D. C.	3220 11th Street, N. W.
†Burns, James Patrick	D. C.	Care U. S. Patent Office
Montana State College		
†Burris, Evan Welsiger	Texas	1606 E Street, N. W.
Southwestern University		
Burris, John Wesley	N. C.	1747 Que Street, N. W.
Trinity College; George Washington University		
Burton, George John	N. Y.	428 Randolph Street, N. W.
Butler, George Henry	N. Dak.	612½ 22nd Street, N. W.
*Butler, Lila Walters	Texas	Murphy, Va.
*Butler, Marion, Jr.	N. C.	Naval Air Station, D. C.
George Washington University		
*Byars, Joseph Cloyd, Jr.	Va.	2511 14th Street, N. W.
Emory and Henry College; George Washington University		
Cain, Clara Janet	Ala.	Apartment 225, Tudor Hall
Callister, Norral Eddington	Utah	3131 ME. Pleasant Street
Cameron, John Joseph	Conn.	1908 N Street, N. W.
A. B., 1915, Yale University		
Canniac, Harold Francis	Maine	935 O Street, N. W.
Carson, Byron Gould	Mass.	1224 L Street, N. W.
Cates, Ronald Edward	Iowa	1733 N Street, N. W.
George Washington University		
Chilton, William Eugene	Va.	762 19th Street, N. W.
Virginia Polytechnic Institute		
Chisholm, Theodore Livings	Md.	Commercial National Bank Building
B. E., 1919, John Hopkins University		
†Cholley, John Francis	Ohio	2725 18th Street, N. W.
B. S., 1920, Mount Union College		
*Christenbery, Robert Keaton	Tenn.	153 A Street, N. E.
Churchill, Virginia Harrison	Ma.	N.O. Building, Gov't Hotel
Clark, Ben Rollin	Mich.	1738 G Street, N. W.
A. B., 1918, University of Michigan		
Clark, Marion Maybelle	Conn.	1836 Fuller Street
Clarke, Neil Ray	D. C.	The Roshambau
Randolph-Mason Woman's College; University of Virginia		
Cocke, Richard Hartwell	Va.	Care Episcopal High School, Alexandria, Va.
University of Virginia		
Con, Conway Peyton	Md.	Care U. S. Patent Office
A. B., 1918, Randolph-Mason College		
Collburn, Joseph Bradley	D. C.	627 7th Street, N. W.
Collins, Alvin Bruce	Va.	2019 North Capitol Street

Name	Legal Residence	Address
*Cook, Benjamin Edwards University of North Carolina	Okla.	George Washington Inn
*Crammond, Earle D. Colgate University	D. C.	2117 G Street, N. W.
*Cramhall, Clyde Dean	Wash.	1632 S Street, N. W.
*Cross, Frederick Sylvester Massachusetts Institute of Tech- nology, George Washington University	W. Va.	1100 Vermont Avenue, N. W.
†Custer, Verna Averill University of Pennsylvania	D. C.	2615 Newark Street, N. W.
*Costis, William James Hampden-Sidney College	Md.	Pocomoke City, Md.
†Cutting, John Herman	Vt.	218 Massachusetts Avenue, N. E.
Dahlquist, Scott Anthony University of California	Utah	1734 G Street, N. W.
Daly, Marguerite Marie	D. C.	2139 N Street, N. W.
Davidova, Emanuel Maurice Carnegie Institute of Tech- nology	D. C.	711 P Street, N. W.
*Davis, Nathaniel Penistone A. B., 1916, Princeton Univer- sity.	D. C.	1769 Columbia Road
Davis, Richard Thurman	Utah	The Huddleigh
†Dawson, Alan Bennett	D. C.	756 12th Street, S. E.
*Dean, Edward Beecher, Jr.	D. C.	1416 K Street, N. W.
*de Dios, Gregorio Vergel	P. I.	1539 Eye Street, N. W.
Degnan, George Aloysius B. S. in M. E., 1919, George Washington University	Pa.	1122 5th Street, N. W.
Dlee, John Oliver	Ill.	1219 Jackson Street, N. E.
Diedel, Caroline Virginia	D. C.	1490 Newton Street, N. W.
Dierkonh, Henry Knedley	D. C.	2915 14th Street, N. W.
di Girolamo, Vincenzo	Italy	1934 Calvert Street, N. W.
†Dinkins, Clarence McQueen University of Virginia	S. C.	1 Dupont Circle
Dodd, Alice Mary	N. Y.	1326 Irving Street, N. W.
Dodd, Esther Elizabeth	N. Y.	1326 Irving Street, N. W.
†Dortch, William Baskowill University of Virginia; George Washington University	D. C.	1510 Park Road, N. W.
*Donahue, Dorothy A. R., 1919, George Washington University	VI.	1935 15th Street, N. W.
*Douthitt, Laidley Ellis Centre College	Ky.	1815 F St., N. W.
Doxtater, Jacob Harrison University of Wisconsin	Wis.	1520 P Street, N. W.
Duell, Howard Snider	N. Dak.	1245 10th Street, N. W.
Duggan, Kathleen	Ga.	1299 Massachusetts Avenue, N. W.
*Dulles, Allen Welsh A. B., 1914, A. M., 1916, Princeton University	N. Y.	Care Department of State
†Dunbar, John Thomas	D. C.	153 B Street, S. E.
Duncan, Ethelbert James	D. C.	820 Massachusetts Avenue, N. E.
Duncan, Grace Marian Earley, Margaret Mary University of Vermont	Iowa	1262 Columbia Road
†Eastlack, John Earl	N. H.	2515 University Place
Eden, Fred J. Hose College	Iowa	1126 7th Street, N. E.
Edwards, Lucile Marie	Ill.	1537 Eye Street, N. W.
*Eichholz, Alvin Conrad	Ind.	1720 M Street, N. W.
Ellis, George Stoughton George Washington University	Pa.	2003 I Street, N. W.
Ellis, Lee Elbert University of Chattanooga	D. C.	2018 13th Street, N. W.
*Emery, Gustav Harold Worcester Polytechnic Institute; George Washington University	Ala.	1319 Massachusetts Avenue
	D. C.	2237 Cathedral Avenue

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
†Erskine, Walter Allen A. B., 1907, A. M., 1910, Syracuse University	N. Y.	152 12th Street, S. E.
*†Farrell, Thomas Francis A. B., 1921, George Washington University	Mass.	1905 H Street, N. W.
Ferris, Lester Francis	D. C.	658 A Street, S. E.
†Findling, Allan Penn Indiana University; University of Paris; Georgetown University School of Foreign Service	Ind.	828 6th Street, N. W.
Fish, Lawrence Harry University of Wisconsin	Wis.	1735 G Street, N. W.
*Flanery, William Herbert	Ky.	102 C Street, S. E.
†Follmer, Joseph Roland	Pa.	1451 L Street, N. W.
Ford, Julia Louise George Washington University	D. C.	828 11th Street, N. E.
Foster, Louise Trimble A. B., 1918, Millikin University	Mo.	Cavanaugh Courts, 17th and Church Streets, N. W.
Fraker, May	Tenn.	1318 K Street, N. W.
†Frank, Jerome William B. S., 1916, University of Pittsburgh	Pa.	1410 Harvard Street, N. W.
Fraser, Francis Lucien	Md.	Forest Glen, Maryland
Fraser, Malcolm Wicks George Washington University; Virginia Military Institute	N. Y.	1026 Vermont Avenue, N. W.
†Frey, John Charles University of Illinois	D. C.	Care Auditor, Treasury Dept.
†Furniss, Robert Melnotte	D. C.	822 Connecticut Avenue
Gall, John Christian Citadel College	S. C.	1627 K Street, N. W.
*Gandy, Helen Williams	Md.	Chevy Chase, Md.
*Gardiner, John Francis	D. C.	2164 Florida Avenue, N. W.
Gibson, Jonathan Catlett	Va.	822 Connecticut Avenue, N. W.
Goldstein, Harris B. C. S., N. Y. University	N. Y.	1819 G Street, N. W.
Gregg, Alexander White Austin College; George Washington University	Texas	1828 15th Street, N. W.
Gregory, Harold De Lancey M. E., 1920, Stevens Institute of Technology	D. C.	1738 N Street, N. W.
Gronna, Arthur Jackson A. B., 1921, George Washington University	N. Dak.	2219 California Street, N. W.
Gulick, George	D. C.	3020 Warder Street, N. W.
Hale, Ralph Coshran George Washington University	Tenn.	644 Eye Street, S. W.
Hamilton, George Welker	Pa.	317 Union Trust Building
*Hann, Willis Hatfield	Pa.	2445 18th Street, N. W.
†Hanner, Dewey Leonard	Ind.	828 12th Street, N. W.
Harriman, Henry Osmond Colby College; Northeastern University	Mass.	The Chastleton
Harris, William Delaware A. B., 1912, Miami University	Ohio	Care Department of Justice
Haselton, Page Smith B. S. in E. E., 1919, Worcester Polytechnic Institute	N. H.	1860 19th Street, N. W.
Hatch, Josie Allen A. B., 1917, University of Texas	D. C.	1608 K Street, N. W.
†Hatcher, James Chandler Birmingham College; George Washington University	Ala.	2015 G Street, N. W.
Hawley, Harry Regan University of Idaho	Idaho	1100 Vermont Avenue, N. W.
Hazell, Joseph William George Washington University	D. C.	The Dresden
*Heckman, Charles Adam	Pa.	314 Columbia Road, N. W.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
Heflin, Cecil Randolph A. B., 1917, William and Mary College	Va.	2086 Garfield Street, N. W.
Heilbrun, Ruth Adele	D. C.	527 Woodward Building
Held, Everett Whittemore	D. C.	The Olympia
Herr, George S.	Pa.	1736 G Street, N. W.
Herrman, David Cornell University; New York State Teachers' College	D. C.	1506 Irving Street, N. W.
Heth, Eva Virginia A. B., 1892, M. A., 1893, University of Virginia	D. C.	1833 S Street, N. W.
Hill, Florence Belle	Ind.	342 10th Street, N. E.
Hill, Guy B. S., 1906, Mass. Inst. of Technology	D. C.	1734 Eye Street, N. W.
Hinckley, Heber Grant	Utah	2115 P Street, N. W.
Hixson, William Alphonso George Washington University	D. C.	624 Irving Street, N. W.
Hogland, Harrell Osborn Berea College	Ind.	The Cordova
Holton, Effie May Morris Harvey College	W. Va.	G-H Building, Gov't Hotel
Humphrey, Thomas Kenneth	Minn.	807 Senate Office Building
Hunt, Drexel Bernard Butler College	Ind.	1741 G Street, N. W.
Hunt, Frank Naylor Robert	Okla.	404 Senate Office Building
Hunter, William Armstrong A. B., 1917, University of Chicago	Idaho	1736 G Street, N. W.
Hurley, Fitzhugh Lee University of North Carolina; George Washington University	D. C.	1736 G Street, N. W.
Hyland, Veronica Theresa	N. Y.	2310 20th Street, N. W.
Jackson, Mamie University of Texas; University of California	Texas	1112 Lamont Street, N. W.
Jacobson, Arnold Windom Grad., 1916, U. S. Naval Academy	Va.	Army and Navy Club
Jensen, Clarence G. George Washington University	D. C.	1706 F Street, N. W.
Johnson, Bertrand Leroy B. S., 1905, Massachusetts Institute of Technology	Mass.	2516 17th Street, N. W.
Johnson, Perry Marshall	Va.	Alexandria, Virginia
Johnston, Dorothy Beard	Calif.	The Rochambeau
Jones, Allen Stanley B. S., 1920, Maryland State College	D. C.	1320 L Street, N. W.
Jordan, Joseph Abner	Ga.	730 4th Street, S. E.
Jordan, Lucian	W. Va.	1741 T Street, N. W.
Keever, Hazel Phelps Indiana University	Ind.	1219 K Street, N. W.
Kelser, Clarence Cyrus George Washington University	Md.	Bethesda, Md.
Kennedy, Edwin Russell, Jr.	D. C.	1733 N Street, N. W.
King, Chester E.	Ill.	2524 17th Street, N. W.
Klooster, Bert Louis Ph. B., 1920, University of Chicago	Ill.	1214 Eye Street, N. W.
Knight, Dorene Katherine	Minn.	912 10th Street, N. W.
Krider, Ira Frank George Washington University	Kans.	1853 Monroe Street, N. W.
Kroll, Margaret Charlotte	D. C.	Takoma Park, D. C.
Kwai, Burnham Young A. B., 1919, Yale College	D. C.	3512 Highland Place, N. W.
La Fleur, Alexander Springfield College; Colby College	Maine	1607 16th Street, N. W.
Langford, Georgia Irene	Ala.	1224 18th Street, N. W.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
Leiden, Cyril Edward George Washington University	Pa.	1428 Columbia Road, N. W.
Levy, Denise Janet	D. C.	1214 Michigan Avenue, N. E.
Lloyd, William Kenyon U. S. Military Academy	D. C.	1825 17th Street, N. W.
London, Samuel Mark	Pa.	1231 7th Street, N. W.
Loop, Edwin Albert University of Montana; Beloit University	Ill.	804 House Office Building
Lowry, James Robert	D. C.	1888 15th Street, N. W.
Mark, Carl Theodore E. E., 1917, Lafayette College	Pa.	1329 K Street, N. W.
Maher, Anna Maria Dwy	D. C.	2960 South Dakota Avenue
Makens, Adelaide Serva A. B., 1920, Trinity College	D. C.	661 E Street, N. W.
Manhera, Ralph Benjamin	Pa.	2903 I Street, N. W.
*Mann, Charles William B. S., 1906, Cornell University	Calif.	517 Cedar Street, N. W.
Marshall, Carl A.	D. C.	2519 University Place
Mason, Laura Belle B. S., 1910, Vanderbilt University	Tenn.	G-11 Building, Gov't Hotel
Melton, Heath Alexander B. A., 1920, Emory and Henry College	Va.	1234 18th Street, N. W.
Mendelson, Israel Jacob	D. C.	2910 M Street, N. W.
Meriele, Harold Francis M'Iliken University; George Washington University	Ill.	Mt. Ragler, Maryland
Merritt, Ella Arvilla A. B., 1903, M. A., 1905, George Washington University	D. C.	1803 Irving Street, N. W.
Miles, Raymond Andrew B. S. in E. E., 1915, Ohio State University	N. Y.	1421 Perry Place
Miller, Elvie Earl	Texas	139 Quincy Place, N. E.
Miller, Edwin Wright Texas University	N. C.	1100 Vermont Avenue, N. W.
Miller, Walter Ferdinand	D. C.	1211 K Street, N. W.
Mills, Helena Jane New York State College	N. Y.	N-O Building, Gov't Hotel
*Moncure, Dorothea Ashby B. S., 1911, Woman's College, Richmond, Va.	Va.	1740 Euclid Street, N. W.
Monroe, Paul Eugene A. B., 1916, Newberry College	N. C.	1326 8th Street, N. W.
Montgomery, Hugh Bishop University of Virginia	D. C.	2422 Brown Street
*Montgomery, James Earl Indiana University	Ind.	720 17th Street, N. W.
Moore, John Henderson George Washington University	D. C.	The Cordova
*Moore, Mary Lillian	Sy.	1801 K Street, N. W.
Moore, Raymond Lester University of Pennsylvania	Pa.	1509 R Street, N. W.
Morelock, Phil Dee A. B., Emory and Henry College; A. M., 1917, Columbia University	Tenn.	1313 Belmont Street, N. W.
*Morgan, Frank Parker	Mass.	2155 I Street, N. W.
Morina, Ferdinando	D. C.	1612 14th Street, N. W.
*Morrisey, Edward Martin	Utah	215 8th Street, N. W.
Moskey, George Andre	D. C.	1208 12th Street, N. W.
*Moul, George Edward University of Pittsburgh	Pa.	1727 Columbia Road, N. W.
Muir, Henry Wright	D. C.	1429 Girard Street, N. W.
Myers, Frank Hammell George Washington University	D. C.	3134 McKinley Street, N. W.
*Myers, George William A. B., 1919, University of Michigan	D. C.	855 House Office Building
*Myers, Orle Eugene University of Georgia	Ga.	2129 F Street, N. W.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
†Myers, Eustia Rice Institute	Texas	1418 M Street, N. W.
McCarthy, Walter Turpin	Va.	Cherrydale, Virginia
McCord, Ruth Winona College	Ind.	1730 M Street, N. W.
*McDaris, Vivien Lois Washington University	Miss.	1712 New Hampshire Avenue
McGrady, Walter Mitchell Trinity College	N. C.	1015 N Street, N. W.
McGrew, Martha Steele A. B., 1920, George Washington University	Tenn.	1737 K Street, N. W.
†McLaughlin, Carl Mathews	Pa.	914 19th Street, N. W.
McMurray, Paul Hayden Simmons College	D. C.	226 A Street, S. E.
McPherson, Joe Francis George Washington University	Mo.	1746 K Street, N. W.
Nall, Arthur Ernest George Washington University	Texas	1523 15th Street, N. W.
†Nason, William Franklyn	Mass.	712 20th Street, N. W.
†Nencey, William	D. C.	643 Que Street, N. W.
*Neblett, Clara Eaton	Va.	1822 Massachusetts Avenue, N. W.
Nelson, Gustaf Arthur	Minn.	1311 N Street, N. W.
*Nevins, Ruby A. B., 1917, George Washington University	D. C.	1421 Columbia Road, N. W.
Nichols, Samuel Cryslor, Jr.	N. Y.	810 6th Street, N. W.
Nicholson, Blake Edwin West Virginia University	D. C.	2427 18th Street, N. W.
Nicholson, William	D. C.	606 Southern Building
Nickles, James Pearson	S. C.	204 2nd Street, S. E.
Nicol, Louise	Ind.	2209 Washington Circle
*Noble, Louise Fredericks	D. C.	1306 Rhode Island Avenue
†Noell, William Wilson Virginia Military Institute	Va.	1600 Rhode Island Avenue, N. W.
Nutt, Roland Lee	Ill.	1018 Munsey Building
Ober, George Clark, Jr. Johns Hopkins University; George Washington University	D. C.	125 B Street, S. E.
*Openshaw, George Feltham	D. C.	2218 Central Avenue, N. E.
O'Renr, Bolivar Buckner Howard College	Ala.	30 6th Street, S. E.
†Overstreet, Walter Everett	D. C.	425 House Office Building
Page, Hardy Barclow Grad. 1915, United States Naval Academy	D. C.	The Ontario
Paland, Ernest Otto	D. C.	1026 K Street, N. E.
†Paravano, Elizabeth Anita	D. C.	Takoma Park, D. C.
†Parkinson, Kenneth Nuttall A. B., 1915, Brigham Young Un- iversity	Idaho	Care Western High School
†Parks, Thomas Wright Clemson College	S. C.	2204 P Street, N. W.
Patterson, John Howell, Jr. A. B., 1919, Davidson College	Fla.	221 East Capitol Street
Pearlstone, Morton Isadore	Pa.	
†Perlman, Milton Morton University of Pennsylvania	D. C.	608 Louisiana Avenue, N. W.
†Perlman, Rebecca A. B., 1921, George Washington University	D. C.	608 Louisiana Avenue, N. W.
†Phelps, George Horace University of Idaho	Idaho	2162 Mt. Pleasant Street, N. W.
†Phillips, Wayne Dawes University of Missouri	Mo.	
*Phillips, Walter Hiram George Washington University	Ohio	1912 C-vert Street, N. W.
*Pilcher, Ruth Elizabeth George Washington University	D. C.	2118 1823 Street, N. W.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
*Pollitt, Mina Riddiford A. B., 1918, University of Cincinnati	Ohio	2012 O Street, N. W.
Pond, Edwin James Colorado College; University of Nebraska	D. C.	1786 G Street, N. W.
Potter, Perry Bryan Washington & Lee University	Va.	1627 K Street, N. W.
Price, Chester Franklin	Ala.	917 18th Street, N. W.
*Pryor, Earl	Md.	Tuxedo, Maryland
Plak, Vaclav James A. B., 1920, University of Arkansas	Ark.	1744 Riggs Place
*Rakemann, Herman Carl, Ja. University of Maryland; George Washington University	D. C.	1928 Biltmore Street, N. W.
Randolph, Elwood Wesley	Conn.	909 7th Street, S. E.
Ratcliff, Clyde Charles Louisiana State University	La.	1215 Vermont Avenue, N. W.
†Ratcliffe, Sue James	N. Y.	1921 Longfellow Street, N. W.
Redway, Georgia	D. C.	1216 O Street, N. W.
Reid, Don C. University of Iowa; George Washington University	Iowa	1736 G Street, N. W.
Reid, Neil Ewart	N. Dak.	9 H Street, N. W.
Reiff, Joseph Shinguff, Jr.	D. C.	1511 22nd Street, N. W.
†Rice, George Sebastian Virginia Military Institute	Va.	280 N. Royal Street, Alexandria, Va.
†Ritch, Jackson King University of Missouri	Mo.	235 House Office Building
†Robertson, Philip Waldo	Texas	1018 15th Street, N. W.
Robinson, Albert Franklin A. B., 1919, Colby College	D. C.	1915 F Street, N. W.
Robinson, Emory Northeastern College	Mass.	982 O Street, N. W.
Robinson, Stephan Boatwell Grad., 1912, United States Naval Academy	D. C.	1615 Que Street, N. W.
Roche, Leo Henry Catholic University	Conn.	67 Adams Street, N. W.
Rogers, William Addison, 2d Rensselaer Polytechnic Institute	D. C.	District Nat'l Bank Building
Romero, Robert R.	N. Mex.	723 19th Street, N. W.
Rosenberg, Louis	D. C.	127 F Street, N. W.
Rowley, Frank Smithies University of Michigan	Wis.	2349 Ontario Road, N. W.
†Rudd, Spencer Tyler	Minn.	1421 Vernon Street, N. W.
Russell, Frank Edmund Alabama Presbyterian College	D. C.	1786 G Street, N. W.
*St. Louis, Joseph Thomas Catholic University	Conn.	35 Girard Street, N. E.
*Saldana, Juan Bautista National University of Mexico City	D. C.	2523 14th Street, N. W.
*†Sanders, Herbert Walt West Virginia University	W. Va.	1425 K Street, N. W.
Saunders, Randall N. George Washington University	D. C.	1928 Columbia Road, N. W.
*Savage, Robert Wilmer Georgetown University	D. C.	635 Maryland Avenue, N. E.
*Savolinen, Uno	N. Y.	1916 L Street, N. W.
Schwab, Clara Virginia	Va.	Alexandria, Va.
†Schwartz, Abraham Nathan University of Maryland	D. C.	422 H Street, N. W.
*Selwyn, Abraham Isidore New York University; College of the City of New York; Columbia University	N. Y.	1497 9th Street, N. W.
Seydell, Harry Maurice State University of Iowa	Iowa	1034 Eye Street, N. W.
Shukewitz, Rose Sylvia	Va.	25 Eye Street, N. E.
Sherman, David Louis	N. Y.	1420 Meridian Place

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
*Shoop, James Harper P. D., 1917, Philadelphia College of Pharmacy	Pa.	1322 L Street, N. W.
†Shrader, Perry William University of Kansas	Kans.	1829 California Street, N. W.
Silva, Pablo Macasaet University of Philippines	P. I.	413 Randolph Street, N. W.
Sirica, Alfonso Eugene	D. C.	415 18th Street, N. W.
Sledd, Susie Marion	Va.	1800 Eye Street, N. W.
†Smith, Donald Wakefield University of Pittsburgh	Pa.	1426 Columbia Road, N. W.
Smith, Edward Rollie	Ky.	28 Rhode Island Avenue, N. W.
*Smith, Merle George University of Oklahoma	Okla.	
*Smyth, Anna Louise A. B., 1916, Smith College; A. M., 1918, Columbia University	Conn.	1614 15th Street, N. W.
†Smyth, Walter Weyler Colgate University; Yale Uni- versity	Conn.	1614 15th Street, N. W.
*Soll, William A. B., 1920, Western Maryland College	N. Y. Md.	1447 R Street, N. W. 127 T Street, N. W.
*Sparks, Robert Salattriel	N. Y.	1209 O Street, N. W.
†Stanley, George Shelburne, Jr.	Va.	1811 K Street, N. W.
†Stark, John Edwin A. B., 1916, University of Illi- nois	Ga.	Clarendon, Virginia
Stearns, Orlo Foster George Washington University	Md.	Mt. Ranier, Md.
Stephens, Ernest Wright Yankton College	S. Dak.	3505 16th Street, N. W.
Stephenson, Francis Marion A. B., 1919, DePauw University	Ind.	2012 O Street, N. W.
Stewart, Ralph Berry B. S., 1913, Clemson College; M. E., 1917, Cornell University	S. C.	1802 R Street, N. W.
Stone, Dollie Mary University of Texas; University of Chicago	Texas	3221 13th Street, N. W.
Stone, Henry Charles A. B., 1917, Wesleyan University	Conn.	826 Woodward Building
†Strayer, Amanda Zella	Ohio	4014 14th Street, N. W.
Stryker, Daniel Ph. B., 1916, Yale University	N. Y.	1019 Washington Loan and Trust Building
*Suguitan, Demetrio Mamaril	P. I.	3518 Newark Street, N. W.
*Sullivan, Julia Patricia	Md.	1368 Kenyon Street, N. W.
Surface, Henry Howard Richmond College; Randolph- Macon College	D. C.	1345 Perry Place, N. W.
†Swygert, John Raynal Woffard College	S. C.	1236 New Hampshire Avenue
†Tackwell, Hazel Estella	Kans.	4128 8th Street, N. W.
Taylor, Beloit Southern Methodist University; University of Arkansas	Ark.	2511 14th Street, N. W.
Taylor, Preston Phillips A. B., 1913, William and Mary College	Va.	1416 Pennsylvania Avenue
Tech, Ruth Catherine	Ind.	P-Q Building, Gov't Hotel
Thomas, Lisle A. B., 1917, George Washington University	Mich.	1420 R Street, N. W.
Trout, George Alexander A. B., 1913, University of Den- ver	Colo.	2913 H Street, N. W.
Tsatsakis, Meyer Johns Hopkins University	D. C.	1185 6th Street, N. W.
*Tucker, Herbert Wickline	Va.	1738 P Street, N. W.

Name	Legal Residence	Address
Tucker, Max Winfield B. S., 1917 Worcester Polytechnic Institute	D. C.	802 Massachusetts Avenue N. E.
*Tull, James Leroy A. B., 1919, Johns Hopkins University	Md.	1422 Pennsylvania Avenue, N. W.
Tyler, Carl W.	D. C.	1429 A Street, N. E.
*Vinch, Eugene University of Naples, Italy	D. C.	3812 Alton Place, Chevy Chase, D. C.
Vollmer, Milton Robert	Va.	2143 P Street, N. W.
Von Eiff, Edgar Louis Maryland State College	D. C.	631 B Street, N. E.
Wallace, Pauline Goldie	D. C.	108 Baltimore Avenue, Takoma Park, D. C.
Walter, Arthur Henry George Washington University	Md.	1204 Euclid Street, N. W.
†Ward, Laird LaMarek	D. C.	1319 N Street, N. W.
Warren, Milton Frederick Allegheny College	Pa.	1750 Massachusetts Avenue
†*Washburn, Donald Fairchild Grad., 1914, U. S. Naval Academy	D. C.	Army and Navy Club
Watzman, Percy George Washington University	D. C.	25 Eye Street, N. E.
Weaver, Leslie	Texas	1566 Irving Street, N. W.
†Weigster, William Frederick B. S., 1918, Pennsylvania State College	Pa.	1829 19th Street, N. W.
Weisbrod, Harold	N. Y.	918 M Street, N. W.
†Wells, John Whitfield	Ga.	1345 Monroe Street, N. W.
Wheeler, Dan Hubert	Mass.	1511 22nd Street, N. W.
White, David Reed	Va.	212 A Street, N. E.
†Whitney, Courtney	Md.	3711 Huntington St., Chevy Chase
*Whitney, Frank Ivna Kansas State Normal School	N. Dak.	Mt. Ranier, Md.
*Wickham, Littleton MacLurg University of Virginia	Va.	Alexandria, Va.
Wilder, William Franklin George Washington University	D. C.	1529 22nd Street, N. W.
Wilgus, Fillmore Ph. B., 1915, Denison University	Ohio	1800 Eye Street, N. W.
Wilkins, Harold Frederick E. E., 1918, Rensselaer Polytechnic Institute	N. Y.	1405 L Street, N. W.
*Williams, Amelia Katherine	D. C.	539 Cedar Street, Takoma Park
Williams, Ernest Francis University of Michigan; Lafayette College; George Washington University	D. C.	1225 Madison Street, N. W.
Williams, Lewis Standing	Pa.	1624 Monroe Street, N. W.
Williams, Thelma	Ga.	L.M. Building, Gov't Hotel
†Willis, Benjamin Coppage St. Johns College; George Washington University	Md.	Northbrook Courts
Wilson, John Barnette George Washington University	La.	Sherman Apartments
†Wilson, Nathaniel Claiborne	Va.	1625 15th Street, N. W.
Winholtz, Ray Abednego University of Nebraska	Neb.	607 22nd Street, N. W.
†Winter, Bailey University of California	Texas	
Wisch, Frank Herman B. S., 1918, M. S., 1919, New York University	N. Y.	3103 19th Street, N. W.
Wiseheart, John William U. S. Military Academy	Ill.	1736 W Street, N. W.
†Wiseheart, Malcolm Boyd	Ill.	1736 W Street, N. W.
Wiseheart, Raymond Frederick	Ill.	1736 W Street, N. W.
Wright, Emma Du Bois	Pa.	1419 Clifton Street, N. W.
*Wright, Karlton Samuel	N. Y.	Northbrook Courts

Name	Legal Residence	Address
†Yates, Isabel Diffenderfer A. B., 1919, Goucher College	D. C.	1212 Girard Street, N. W.
†Yokum, James William	D. C.	920 Maryland Avenue, N. E.
Yokum, Otis Moncrief	D. C.	920 Maryland Avenue, N. E.
Young, Glenn Olen University of Missouri	Mo.	318 Massachusetts Avenue, N. E.
Zaslowski, Walter	Conn.	622 22nd Street, N. W.
Zimmerman, William Ellis, Jr. University of Pennsylvania	Pa.	1603 Massachusetts Avenue, N. W.

Second Year Class

Adams, Leslie Harold A. B., 1920, George Washington University	D. C.	1637 Harvard Terrace
Almond, Roger Price Fairmount College; Kansas University	Kans.	1333 15th Street, N. W.
Anderton, Robert Hyde B. S., 1916, C. E., 1917, Dartmouth College	R. I.	1769 Columbia Road
Anthony, Jesse	Ga.	Apt. 21, No. 7 Iowa Circle
Armstrong, Jasper Henderson	Tenn.	The Portner
Ash, Ray A. B., 1918, West Virginia University	W. Va.	1903 H Street, N. W.
Askew, George Washington	Miss.	217 Senate Office Building
Atkins, Julia Spencer	N. C.	1450 Ontario Place
Baker, John Thaddeus	Okla.	1246 11th Street, N. W.
Bannister, DeVillo Andrew State University of Iowa	S. Dak.	1419 R Street, N. W.
Barkman, William Ernest	D. C.	218 8th Street, S. E.
Barlow, Herbert Boutell Ph. B., 1920, Brown University	R. I.	1736 G Street, N. W.
Baughman, Thomas Frank George Washington University	D. C.	1330 Massachusetts Avenue
†Bauman, Walter Michael University of Nebraska	Nebr.	1426 Columbia Road
Baxter, Horace Monroe B. S. in E. E., 1917, Massachusetts Institute of Technology	Mass.	4011 14th Street, N. W.
Beall, Dorothy Joyce	D. C.	2016 Hillyer Place
Behne, Joe Carol Oklahoma University	Okla.	1736 G Street, N. W.
Behne, Tom Darl Oklahoma University	Okla.	1736 G Street, N. W.
Belden, Lillian Catharine Ph. B., 1918 Hiram College	Ohio	920 19th Street, N. W.
Berg, Casper Robert University of Wisconsin	Wis.	1327 N Street, N. W.
Berry, Sydney Griswold Ch. E., 1916, Columbia University	N. J.	Room 169, Patent Office
Bladen, Ashby Edward George Washington University	Va.	Alexandria, Virginia
Blanken, David George Washington University	D. C.	1408 6th Street, N. W.
Boardman, Jean Melmouth	Ill.	1829 19th Street, N. W.
Boat, Marion Louis	Iowa	1420 Rhode Island Avenue
Botehr, Charles Magdefray George Washington University	D. C.	616 North Carolina Avenue, S. E.
Brachlow, Willard Hayden	Minn.	1736 G Street, N. W.
Burdick, Robert Cortez A. B., 1917, University of Chattanooga	Ala.	1733 N Street, N. W.
Burns, James Alexander	D. C.	217 13th Street, S. E.
*Busch, Howard G.	Mo.	House Office Building
Bush, Ada Lillian	Ill.	3223 18th Street, N. W.
Butler, Aaron Prentiss B. S., 1918, University of Vermont	Vt.	1736 G Street, N. W.

Name	Legal Residence	Address
Callahan, Mildred Ruberta A. B., 1919, George Washington University	Va.	218 S. Fairfax Street, Alexandria, Va.
Carlson, Helen Rembert A. B., 1913, Miss. Industrial Inst. and College	Miss.	1638 Irving Street
Chebithes, Vasilios Isadore A. B., 1916, Centre College	Ky.	702 19th Street, N. W.
*Clare, Harold Joseph Cleveland, Washington Irving University of Wisconsin	Mich. Md.	Kensington, Md.
Coffin, William Marmaduke University of Cincinnati	Ohio	893-A House Office Building
Cohen, Charles Abraham Dickinson College	N. J.	202 Alabama Apartments
Cone, Gilbert Augusta	Texas	1420 21st Street, N. W.
Cone, Naomi Greene	Texas	1418 Hopkins Place
Connelly, Mary Magdalen	N. Y.	1110 P Street, N. W.
Conway, Marcell	D. C.	1780 Lanier Place
Conwell, Donald Elmer	Okla.	8 Iowa Circle
Cooley, James Paschal University of Virginia	Va.	8 Walnut Street, Clarendon, Va.
Corbitt, Jesse Glenn Alabama Polytechnic Institute	Ala.	1100 Vermont Avenue
Cornell, Clifford Frank A. B., 1920, Vanderbilt University	Tenn.	1829 19th Street, N. W.
Cornell, Ralph Guy	N. Y.	1350 Monroe Street, N. W.
Covington, Mary Simmons A. B., 1903 Shorter College	N. C.	A-B Building, Gov't Hotel
Cox, Jerome Rockhold Western Maryland College	Md.	1736 G Street, N. W.
Daily, Allan Frederick	Utah	The Hadleigh
Daily, John Ryan Bradley Polytechnic Institute	Ill.	1100 Vermont Avenue
Daugherty, Duncan Wilmer	W. Va.	1242 12th Street, N. W.
de Brodes, George Victor	D. C.	The Portner
Dennis, Vincent William Georgetown University	Conn.	4 Girard Street, S. E.
Der Bedrosian, Charles	N. J.	1736 G Street, N. W.
*Diaz, Benito Dacanay	P. I.	8019 P Street, N. W.
Dieserud, Helge Christopher B. S. in M. E., 1918, University of Illinois	D. C.	216 Maryland Avenue, N. E.
Dodson, Frederick William B. S., 1917, Massachusetts Institute of Technology	D. C.	1330 Montague Street, N. W.
Doi, Kiyochi University of Illinois	Hawaii	1 Iowa Circle
Dolby, Bird Hagen	D. C.	637 Raleigh Street, S. E.
*Dowell, Marie Louise A. B., 1919 Goucher College	D. C.	2026 Newark Street, Cleveland Park
Duffy, Gerald Eugene	Pa.	1736 G Street, N. W.
Dunker, Will Frank	Iowa	602, The Chaumont
Dworkin, Meyer	Conn.	609 H Street, N. W.
Eatman, Phelan Williams Louisiana State University	La.	2140 N Street, N. W.
Edwards, John James Maryville College	Tenn.	502 Clifton Terrace, South
Elliott, Elmer Adlai Hendrix College	Ark.	1422 11th Street, N. W.
Engelhart, George Kemp Iowa State College	Ill.	2800 14th Street, N. W.
Espey, Henry Clay	D. C.	51 Adams Street, N. W.
Espey, Howard Hamilton George Washington University	D. C.	2010 1st Street, N. W.
*Fees, Don Clare Dana College; State University of Iowa	Nebr.	1920 18th Street, N. W.
*Finagin, Le Roy	D. C.	409 District National Bank Building
*Fitzgerald, James Leo	Mass.	46 Franklin Street, N. E.

Name	Legal Residence	Address
Fogle, Charles Dent	D. C.	1429 C Street, N. E.
Forbes, William Henry	Mass.	1018 14th Street, N. W.
French, William Thomas	D. C.	224 Beech Street, Clarendon, Va.
Friedman, Samuel Aaron	N. Y.	1416 9th Street, N. W.
Gatch, Thomas Leigh Grad., 1912, United States Naval Academy	Md.	Office of J. A. G., Navy Department
Gayle, Catherine Jarvis	Va.	Fort Myer Heights, Virginia
Gediman, Herbert William	Mass.	929 K Street, N. W.
Glass, David Rose	Calif.	428½ M Street, N. W.
†Glass, John Duel University of Kansas	D. C.	700 10th Street, N. W.
*Goley, Lawrence L.	Ill.	730 17th Street, N. W.
Gorman, Lois Gates	Pa.	1807 California Street
Greene, Adelbert Jay A. B., 1916, University of Colorado	Nev.	Div. 22, Patent Office
Greene, Aldie Ross A. B., 1910, Albion College	Mich.	Div. 22, Patent Office
Hagner, Leonard Gawthrop Ph. D., 1913, Dickinson College	Del.	1014 15th Street, N. W.
Hanson, Edward J. George Washington University	N. C.	1333 15th Street, N. W.
Hardy, Franklin Earl Union College	N. Y.	1222 Irving Street, N. W.
Harlan, John Graydon University of Pittsburgh	Pa.	647½ G Street, N. E.
Harrah, Eugene Benjamin University of Pennsylvania	D. C.	1653 Newton Street, N. W.
Hartman, Joe	Ohio	2026 F Street, N. W.
Hays, Lawrence Brooks A. B., 1919, University of Arkansas	Ark.	1322 15th Street, N. W.
Hazen, Joseph Harrington George Washington University	N. Y.	1608 Lanier Place
Hearne, George Wilson A. B., 1919, Delaware College	Del.	The Sherman Apartments
Henderson, Oliver Vanderbilt University	Ala.	1023 15th Street, N. W.
Hilliard, Benjamin Clark, Jr. State University of Iowa	Colo.	1422 Massachusetts Avenue
Hinds, Eugene Reed	S. Dak.	Cherrydale, Va.
Hodge, David Malcolm A. B., 1919, Swarthmore College	Pa.	1916 16th Street, N. W.
Holliday, Marion Elizabeth	Ill.	1329 Belmont Street, N. W.
Honts, Emory R.	Okla.	1120 New York Avenue
Horne, Pauline Innes A. B., 1918, University of California	Calif.	1765 Euclid Street
†Horsefield, Russell James Washington University; University of Chicago	Mo.	2311 14th Street
Hostettler, Binna	Ind.	1216 9th Street, N. W.
*Howing, Helen Pauline University of Missouri	Mo.	Apart. 130, The Chastleton
Huck, Laurie Meriwether University of Texas	Texas	1215 Vermont Avenue
Hudson, John White A. B., 1920, University of Missouri	Mo.	1383 Irving Street, N. W.
Huff, Jesse M. E., 1914, Ohio State University	D. C.	521 18th Street, N. W.
Hughes, George Ernest University of Texas	D. C.	128 B Street, N. E.
*Hughes, James Francis St. Charles College	R. I.	Box 233, Catholic University
Hundley, James Curry George Washington University	Calif.	526 11th Street, N. E.
Hunt, Warren Hansell	D. C.	2305 18th Street, N. W.

Name	Legal Residence	Address
Hunter, Donald Van Osdol Indiana University	Ind.	1354 Monroe Street
Hunter, Marie Litzelman	Pa.	1354 Monroe Street
Jackson, Albert Leslie University of Texas	Texas	128 B Street, N. E.
Jackson, Elmer James Muhlenberg College	Pa.	1605 Massachusetts Avenue
Jenkins, Ben	Ill.	424 Kenyon Street
*Jones, Homer William	Pa.	1402 L Street, N. W.
Katz, William B. S., 1914 College of City of New York	N. Y.	511 L Street, N. W.
Keefer, Arthur Charles	Md.	Mt. Ranier, Md.
Ketner, Henry Ernest	N. C.	2140 N Street, N. W.
Ketner, James Thomas	N. C.	2140 N Street, N. W.
Kilpatrick, Howard Cecil Alabama Polytechnic Institute	Ala.	1786 G Street, N. W.
Kirby, Homer H. George Washington University	Ohio	1815 F Street, N. W.
Kilne, Virgil Claude B. S. in Ed., 1917, University of Missouri	Va.	Div. 10, Patent Office
Knock, Franklin George Washington University	D. C.	1794 Columbia Road
Knowlton, Alfred Smith Macalester College; University of Minnesota	Minn.	2035 Park Road, N. W.
Kuzmiak, John Stephen	Pa.	1736 G Street, N. W.
Lacy, Olive Beatrice	N. J.	1847 Girard Street, N. W.
Larson, John Emil George Washington University	Maine	1758 S Street, N. W.
Lassen, Earle Charles	Wash.	521 18th Street, N. W.
Lee, Ednah McKinley	D. C.	1309 Quincy Street, N. W.
Levy, Oscar Isaac B. S., 1914, M. S., 1918, Univer- sity of Chicago	La.	Div. 25, Patent Office
*L'Hommedieu, Elsie Langworthy A. B., 1918, Middlebury College	D. C.	1322 6th Street, N. W.
L'Hommedieu, Samuel	D. C.	1322 6th Street, N. W.
Littell, Nelson A. B., 1920, George Washington University	Ind.	1830 Kenyon Street, N. W.
Lodge, Thomas Ellis	Del.	1736 G Street, N. W.
Longstreet, William Carl, Jr. B. S., 1919, University of Penn- sylvania	N. J.	1633 Newton Street, N. W.
Lucal, Ira David George Washington University	Ohio	1479 Monroe Street, N. W.
Luce, Llewellyn Atsett Montana State College; Univer- sity of Chicago	Mont.	32 V Street, N. W.
Lyon, William Campbell Carnegie Institute of Technology	Pa.	2511 14th Street, N. W.
Magathan, Wallace Clifton A. B., 1914, University of Kansas	Kans.	24 Denwood Avenue, Takoma Park
Malafronte, Dominick Joseph	Conn.	724 Hamlin Street
Marshall, Clinton Lee	Va.	2568 University Place
Marshall, Robert Wallace	Ky.	1829 19th Street, N. W.
Mathias, Floyd Branson West Virginia University	W. Va.	Mt. Ranier, Md.
Maxwell, Charles Warren Catholic University	Conn.	4 Gerard Street
Meadow, Hilda Wesleyan College	Ga.	1332 L Street, N. W.
Montgomery, Anna Carroll	D. C.	1743 Rhode Island Avenue
Morgan, Robert Elmer A. B., 1918, Arkansas University	Okla.	1744 Riggs Place
Morris, John G.	Ky.	232 Randolph Place
Mount, Thomas Flippin	Tenn.	Care U. S. Court of Claims
McCarthy, Edward, Jr. Richmond College	Va.	Cherrydale, Va.
McCaslin, Walter Wood	Va.	2501 Pennsylvania Avenue.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
McClean, Cyril Wesley A. B., 1915, University of California	Calif.	Care Department of Justice
McCoy, Philbrick	D. C.	The Wyoming Apartments
McEnechern, William Cameron University of Idaho	Idaho	1736 G Street, N. W.
McIntosh, Samuel Wallace	D. C.	128 C Street, N. E.
*McKinley, Lloyd Henry	W. Va.	124 A Street, N. E.
McVay, William Walter Waynesburg College	Pa.	1733 N Street, N. W.
Nichols, Ross Manning	N. J.	1422 Massachusetts Avenue
Nielsen, George Leonard George Washington University	Utah	1833 15th Street, N. W.
Noe, Edward Terris, Jr. B. S. in E. E., 1914, University of Pennsylvania	Pa.	Div. 22, Patent Office
O'Brien, Matthew Houston A. B., 1916, Wesleyan University	D. C.	1229 Euclid Street, N. W.
Odell, Robert Russell	S. Dak.	1100 Vermont Avenue
Osnes, Olaf Walter	S. Dak.	1736 G Street, N. W.
Paul, Albert Harding University of Utah	Utah	1736 G Street, N. W.
Payne, Horace Durant A. B., 1917, University of Missouri	Okla.	1833 Irving Street, N. W.
Penrod, Herman Garfield	Ohio	3365 18th Street, N. W.
Perlin, Harry A. B., 1920, George Washington University	N. Y.	2219 H Street, N. W.
Peterman, James Cuyler U. S. Military Academy	La.	505 Clifton Terrace, East
Piegrass, Charles Spurgeon University of Oklahoma	Okla.	1320 New York Avenue
Pixley, Rex Arthur Maryville College	Mich.	Care Auditor for War Dept.
Plagens, Henry Jay	Kans.	15th and U Street, Apt. 324
Pollitt, Basil Hubbard A. B., 1917, University of Cincinnati	W. Va.	2012 O Street, N. W.
*Porter, Charles Wallace De Pauw University; Ohio University	Ohio	1827 S Street, N. W.
Raine, Wendell Phillips B. S. in E. E., 1907, M. A., 1911, University of Pennsylvania	Pa.	1731 S Street, N. W.
†Ralsbeck, James, Jr. Sperry's College, Glasgow, Scotland	W. Va.	1023 15th Street, N. W.
Rauber, Margaret Elizabeth	N. Y.	2025 Kalorama Road
Reese, Francis Sydney	Md.	8135 Highland Place, N. W.
Reynolds, Marvin Jacob C. E., 1917, Rensselaer Polytechnic Institute	N. Y.	1918 18th Street, N. W.
Rider, Wakeman A. B., 1904 Colgate University	N. Y.	Commercial National Bank Building
Robertson, Richard St. Olaf College	D. C.	1744 Riggs Place, N. W.
Rockow, Arthur	Wis.	1872 California Street, N. W.
Rosenberger, Charles Rupley	Md.	2510 Ontario Road, N. W.
Ross, William Warfield	D. C.	1818 20th Street, N. W.
Sandoe, Nichol Main B. S., 1919 Dartmouth College	D. C.	235 15th Street, N. E.
Scott, Ralph Sinthal A. B., 1921, George Washington University	D. C.	1512 21st Street, N. W.
See, Ernest Aldine A. B., 1920, George Washington University	W. Va.	1738 N Street, N. W.
Seeley, Bromley	D. C.	The Dresden
Shanholtzer, James Clinton Shepherd College	W. Va.	2030 G Street, N. W.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
Shinnick, Herbert Hanserd George Washington University	Va.	822 Vernon Street, N. W.
Shumaker, Frederic Arthur	Kans.	The Cumberland
Simmons, Rush Nelson George Washington University	Minn.	727 Webster Street, N. W.
*Simmons, Verne Phil University of Missouri	Mo.	1829 19th Street, N. W.
Smith, Talma L. A. B., 1918, George Washington University	Texas	232 House Office Building
Snow, Chester Ammen, Jr. University of Pennsylvania	Md.	710 8th Street, N. W.
Snyder, Ross H.	Ill.	307 C Street, N. W.
*Sommerkamp, Frank Marcerum, Jr. University of Georgia	D. C.	1736 G Street, N. W.
Spears, Cleo Calvin	Ohio	1360 Meridian Place
Sporkin, M. Walton, Jr. University of Pittsburgh	Pa.	1872 California Street
Stanley, Clinton Fiske A. B., 1913, Earlham College	Ind.	920 19th Street, N. W.
Steely, Maye	Ala.	1224 18th Street, N. W.
Stephenson, Frank Tilghman	Texas	1915 Kenyon Street, N. W.
Stevens, Eugene Ensign, Jr.	Md.	622-24 F Street, N. W.
Stokes, Walter Raymond	D. C.	308 Clifton Terrace, South
Stoltz, Authwin Valparaiso University	Ill.	1425 C Street, N. E.
Sucher, Ralph Gunn Bradley Polytechnic Institute; University of Wisconsin	Ill.	427 Senate Office Building
Symons, Noel Speer A. B., 1919, Princeton University	D. C.	1806 New Hampshire Avenue
Taylor, James Harvey Grad., 1911, U. S. Naval Acad- emy	Calif.	Office of J. A. G., Navy Dept.
Thompson, Frank Marion, Jr.	N. C.	1120 Rhode Island Avenue
Thompson, Glenn M.	Ind.	Rosslyn, Virginia
Thurman, Allen Grover A. B., 1916, University of Utah	Utah	1333 15th Street, N. W.
Tilghman, Sarah Augusta A. B., 1917, Goucher College	Md.	1737 T Street, N. W.
Tinnerman, Clifford Lowell Ohio State University	Ohio	New Berne Apartment
Towers, Frederic Newton	D. C.	1882 Columbia Road
Townsend, Irving Upson, Jr. A. B., 1915, Harvard University	Mass.	1331 Belmont Street, N. W.
Tron, Robert Augustus	D. C.	1314 30th Street, N. W.
Turner, Bolon Bailey University of Arkansas	Ark.	1333 15th Street.
Ursua, Francisco Antonio University of California	Mexico	The Hadleigh
*Van Veghten, Theodore Shafer	N. Y.	Bolling Field, Anacostia, D. C.
Wainwright, Charles Edward Bucknell University; Columbia University	Va.	1100 Vermont Avenue
Wallick, Earle Wilbur A. B., 1919, George Washington University	Ill.	1603 Massachusetts Avenue
Weisbrod, Max	N. Y.	Commercial National Bank Building
Welsh, Nell Irene	Pa.	1315 Park Road
Weyler, George Lester Grad., 1910, U. S. Naval Academy	Kans.	Care Navy Department
Whitaker, Lorenzo Dowe George Washington University	D. C.	987 14th Street, S. E.
White, Robert Emerson University of Kentucky	S. C.	1295 N Street, N. W.
Whitehurst, Herschel Smith Georgia School of Technology; Meridian Male College	Ga.	1329 Belmont Street
Williams, Dwight Hagar A. B., 1920, University of Iowa	Iowa	

Name	Legal Residence	Address
Wiseman, Kenneth Carson Methodist University of Oklahoma	N. Mex.	2011 F Street, N. W.
Wood, John Williamson George Washington University	D. C.	2636 Garfield Street, N. W.
Woodside, Joseph Benjamin Valparaiso University; University of Paris	Ill.	1184 8th Street, N. W.
Woodward Charles William University of Georgia	Md.	1014 11th Street, N. W.
Wormhoudt, Marion Paul Central College	Iowa	1426 Rhode Island Avenue N. W.
*Wright, Ethel Robinson Wright, Joseph Douglas Colorado College	N. J. Colo.	Allies' Inn 1436 K Street, N. W.
Wunderlich, Lucile Marie Yale, Miles	Ky. Conn.	525 Quincy Street 3719 Keokuk Street
Yates, Frank Lloyd West Virginia University	W. Va.	1733 N Street, N. W.
Young, Horace Chapman	Ky.	1733 N Street, N. W.
Young, Willis Harold	Minn.	Falls Church, Va.

Third Year Class

Acosta, Faustino Bartolome A. B., 1916, National Academy, Philippines	P. I.	531 18th St., N. W.
Archey, Edith Marshall Barbour, Harriet May George Washington University	Ill. Oreg.	912 Eye Street, N. W. 3213 13th Street, N. W.
Barnes, Charles Maurice A. B., 1910, George Washington University	Va.	1436 Meridian Place
Baruch, Ismar Ph. B., 1915, Brown University; A. M., 1916, Princeton University	Conn.	1114 Euclid Street, N. W.
Brock, Howard Merle Toledo University	Ohio	1736 G Street, N. W.
Brunenkant, Edward Jacob Leland Stanford Junior University	Calif.	3651 10th St., N. W.
Burros, Morris Burton, William Cameron George Washington University	Conn. D. C.	1111 6th Street, N. W. 424 8th Street, N. E.
Campaign, Harry John University of Wisconsin	Wis.	1426 Columbia Road, N. W.
*Carter, Ferdinand Espey	Md.	16 Taylor Street, Chevy Chase, Md.
Canfield, Raymond Bishop Ph. B., 1910, Yale University	D. C.	1019 Washington Loan and Trust Building
Cerezo, Alfred Clark, Thomas Young B. S., 1918, Earlham College	N. Y. Ind.	110 E Street, N. W. 1124 Park Road, N. W.
Cole, Francis Arthur Central College, Pella, Iowa	Iowa	931 O Street, N. W.
*Corbin, Elmer L. Cramer, John Nicholas Columbia University	Ill. N. Y.	1011 Monroe Street 1744 F Street, N. W.
Crews, Clarence McKinnie Crosby, Pearl Curry, Joseph Clifford University of Chattanooga	D. C. N. J. Tenn.	109 5th Street, N. E. 1727 Euclid Street 1736 G Street, N. W.
*Duffy, Maurice Matthew University of Washington	Wash.	1512 Lamont Street
Ellison, Newell Windom A. B., 1917, George Washington University	Tenn.	1426 Columbia Road
Eno, Glenn Union Christian College	Ind.	1866 Kenyon Street, N. W.
Fehr, Joseph Conrad	Utah	1829 19th Street, N. W.

Name	Legal Residence	Address
Fitzgerrell, Sylvester Stanton A. B., 1917, University of Illinois	Ill.	1786 G Street, N. W.
Frey, Charles Millard A. B., 1917, University of Nebraska	Nebr.	1786 G Street, N. W.
Geiger, Olive Evelyn Maryland College for Women	D. C.	2851 29th Street, N. W.
Gillis, Harry Arthur A. B., 1914, Monmouth College	Iowa	1215 K Street, N. W.
Glass, Robert Lewis B. S. in E. E., 1913, Pittsburgh University	Pa.	4102 5th Street, N. W.
Goldberg, Harry Samuel	Conn.	The Brunswick, Apart. 42
Gregg, Lewis Judson	Mich.	26 14th Street, N. W.
Hammond, James Morris Stanford University; University of California	Nev.	2414 Munitions Building
Harris, Brantley Callaway A. B., 1917, Rice Institute	Texas	105 House Office Building
Hechmer, Marie Antonette Dolores	W. Va.	822 18th Street, N. W.
Heitmuller, Ralph Emmert George Washington University	D. C.	1307 14th Street, N. W.
Henderson, Robert Grad., 1902, U. S. Naval Academy	D. C.	Room 1704, Navy Department
Higgins, Daniel Ernest University of Maine	Maine	2006 F Street, N. W.
Hoffman, John Edward	Pa.	1424 Harvard Street, N. W.
Holt, Everett Guy A. B., 1915, Colby College	Maine	715 19th Street, N. W.
Hurd, Cato Burdige	Ind.	1101 Euclid Street
Hutt, James Brooke U. S. Naval Academy	Va.	1476 Newton Street, N. W.
Johnson, Herbert Carl	Minn.	1100 Vermont Avenue, N. W.
Johnson, William Monroe	Md.	1414 21st Street, N. W.
Kay, Harold Thomas A. B., 1920, University of Utah	Utah	1786 G Street, N. W.
Kronenberg, James Frederick A. B., 1919, University of California	Pa.	1328 Q Street, N. W.
Lacy, Samuel Winston Richmond College	Va.	P. O. Box 675, 11th Street Station
La Fleur, John Ralph B. S., 1915, Colby College	Maine	1607 16th Street, N. W.
Landers, Norman Lincoln A. B., 1915, Lenox College	Iowa	Northbrook Courts
Lane, Munson Harmon B. S., 1918, Princeton University	Va.	Care U. S. Patent Office
Lee, Vivien Otto	Okla.	3083 16th Street, N. W.
Lehman, Roland Julius George Washington University	Ill.	1404 Harvard Street, N. W.
Lehr, Milton Anthony	Ohio	5617 Colorado Avenue
Lewis, Edward Dench B. S., 1918, Syracuse University	N. Y.	1813 F Street, N. W.
Livingston, Walter McKenzie University of South Dakota	S. Dak.	1843 Harvard Street, N. W.
Mather, Thomas Metier State University of Iowa	S. Dak.	1823 15th Street, N. W.
Miller, Jesse Clinton	N. Dak.	203 9th Street, S. W.
Morford, James Richard	Del.	1720 Willard Street
McCoy, Whitley Peterson A. B., 1916, Dartmouth College	W. Va.	3421 24th Place, N. W.
McGuire, Ollie Roscoe A. B., 1917, Louisiana State University	La.	Cherrydale, Va.
Nelson, Le Roy Walter	Nebr.	550 20th Street, N. W.
O'Brien, James John	N. Y.	1360 Harvard Street
O'Leary, John Francis Latko	Wis.	1924 2nd Street, N. E.
*Oliver, Fred Nash A. B., 1920, George Washington University	Texas	Ward 66, Walter Reed Hospital

Name	Legal Residence	Address
Paden, Jack	Okla.	516 House Office Building
Park, Frances Elizabeth	N. Y.	1914 N Street, N. W.
Ph. B., Syracuse University		
Pearlove, Edward Joseph	Minn.	1826 15th Street, N. W.
Phillips, John Barton	Va.	216 S. Fairfax Street, Alexandria, Va.
George Washington University;		
University of Virginia		
Pierce, Clifford Davis	Tenn.	907 18th Street, N. W.
George Washington University		
Pool, Harry R.	Minn.	1786 G Street, N. W.
University of Minnesota		
Ring, Freda	D. C.	1215 Harvard Street, N. W.
George Washington University		
Roberts, Samuel Judson	D. C.	1746 K Street, N. W.
Rogers, Victor Jenkins	Kans.	1880 F Street, N. W.
University of Kansas		
*Ryan, Mark Joseph	N. Y.	1431 L Street, N. W.
*Saulsbury, William	Del.	Somerset House, 16th and S Streets
A. B., 1887, Harvard University		
Shalina, Anthony Oswald	Pa.	229 Indiana Avenue, N. W.
A. B., 1916, Cornell University		
Simpfleh, Briggs George	Wash.	1750 Massachusetts Avenue, N. W.
University of Washington		
Smith, Harold Calmes	Texas	Box 127, Rockville, Maryland
Davidson College; George Washington University; University of Texas		
Sokolov, Harry Eliot	D. C.	32 Q Street, N. W.
Stayton, William Henry, Jr.	N. Y.	Lexington Building, Baltimore, Md.
Harvard University		
Stone, Henry Ulen	Mo.	1311 24th Street, N. W.
Strong, George Eugene	Kans.	Room 189, House Office Building
Ph. B., 1917, University of Chicago; A. B., 1919, University of Kansas		
Taggart, Etta Louise	D. C.	1736 Park Road
Tierney, James Paul	W. Va.	1332 I Street, N. W.
West Virginia University		
Uehren, Robert Monat	Wis.	1343 Harvard Street, N. W.
Underwood, Eugene, Jr.	D. C.	707 20th Street, N. W.
A. B., 1919, George Washington University		
Watkins, John David	Miss.	217 Senate Office Building
Wegener, Emma Alma	Wis.	1844 Meridian Place
Willes, Hoadley Horatio	Conn.	801 12th Street, N. W.
Williams, Virginius Paison	N. C.	1329 Rhode Island Avenue, N. W.
A. B., 1917, University of North Carolina		
Williamson, Ernest R.	Oreg.	1741 F Street, N. W.
Willis, Warren Jennison	Minn.	Care U. S. Patent Office
Grad., 1912, U. S. Naval Academy; A. B., 1918, George Washington University		
Wilson, John Johnston	Md.	1320 Farragut Street, N. W.
Wilson, Lee Ross	Ohio	1846 Monroe Street, N. E.
George Washington University		
Woodson, Fred Lee	Mo.	1739 Columbia Road
Wright, Harold Page	K. I.	Clerk's Document Room, House Office Building
Brown University		
Young, Leslie Bernard	N. Y.	1428 Columbia Road
A. B., 1913, Cornell University		

CANDIDATES FOR DEGREE OF MASTER OF LAWS

*Bonneville, William Henry	Idaho	1736 G Street, N. W.
A. B., 1916, LL. B., 1917, University of Idaho		
Brooks, Gerald Ward	N. Y.	309 B Street, N. E.
LL. B., 1916, University of Buffalo		

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
*Brown, Walter Lee Arkansas College; LL. B., 1920, George Washington University	Ark.	3026½ R Street, N. W.
Bryant, Joseph Mortimer B. S., 1902, C. E., 1905, Virginia Polytechnic Institute; LL. B., 1920, George Washington Uni- versity	Utah	1219 Shepherd Street, N. W.
*Bumgarner, Simeon Columbus LL. B., 1909, Washington and Lee University; LL. B., 1910 Yale University	D. C.	8506 M Street, N. W.
†Canfield, Raymond Bishop Ph. B., 1910, Yale University; LL. B., 1921, George Washing- ton University	D. C.	1019 Washington Loan and Trust Building
Carter, George Henry Ph. B., 1898, State University of Iowa; LL. B., 1920, George Washington University	Iowa	1661 Hobart Street, N. W.
*Clark, Marion A. B., 1901, A. M., 1904, West- ern Maryland University; LL. B., 1916, George Washington University	Md.	McKinley M. T. School
Clarke, Calvin LL. B., 1920, George Washington University	Ky.	2702 12th Street, N. E.
†Curry, Joseph Clifford University of Chattanooga; LL. B., 1921, George Washington University	Tenn.	1736 G Street, N. W.
†Denning, William Ira LL. B., 1913, George Washington University	Ga.	4428 7th Street, N. W.
†Eddy, Grace Marie George Washington University; LL. B., 1920, George Washing- ton University	Wis.	V-W Building, Gov't Hotel
*Ershler, Philip LL. B., 1917, George Washington University	D. C.	2728 18th Street, N. W.
Fuller, Wiley Madison University of Texas; LL. B., 1920, George Washington Uni- versity	Texas	919 20th Street, N. W.
†Hammond, James Morris Stanford University; University of California; LL. B., 1921, George Washington University	Nev.	1219 Eye Street, N. W.
Holmgren, Samuel Theodore LL. B., 1920, George Washington University	N. H.	1603 Massachusetts Avenue
†Hurd, Cato Burdge LL. B., 1921, George Washing- ton University	Ind.	1101 Euclid Street
MacMillan, Clifford James LL. B., 1920, University of South- ern California	Calif.	1825 G Street, N. W.
*†Manning, Lucy Rains LL. B., 1920, George Washington University	Okla.	1245 Crittenden Street
Markhus, Andrew A. B., 1919, University of Idaho; LL. B., 1920, George Washing- ton University	Idaho	1311 L Street, N. W.
Mason, Clifford Wallace LL. B., 1907, Syracuse University	N. Y.	809 Mt. Vernon Place
Meseko, Frank Bennett Ph. B., 1912, University of Chi- cago; LL. B., 1920, George Washington University	Ind.	429 G Street, N. W.

<i>Name</i>	<i>Legal Residence</i>	<i>Address</i>
Miller, Clarence Altha LL. B., 1919, George Washington University	Pa.	1002 Girard Street, N. W.
Morrow, Henry Bascom, Jr. LL. B., 1917, George Washington University	Tenn.	502 Clifton Terrace, South
Nettleton, Leigh Lanman University of Utah; LL. B., 1912, George Washington University	Utah	2411 Pennsylvania Avenue, N. W.
Nixon, Jesse Martin LL. B., 1920, Vanderbilt University	Tenn.	1023 13th Street, N. W.
Paltridge, George Henry A. B., 1918, LL. B., Feb., 1920, George Washington University	D. C.	1222 O Street, N. W.
Patrick, John Hezzie A. B. and B. S. in Ed., 1912, University of Missouri; LL. B., 1920, George Washington University	Mo.	1736 G Street, N. W.
Peter, Robert George Washington University; LL. B., 1920, George Washington University	Md.	Rockville, Md.
*Raymond, Mary Jane LL. B., 1920, George Washington University	D. C.	1224 Euclid Street, N. W.
Richardson, Henry Jefferson Ouachita College; LL. B., 1920, George Washington University	Ark.	223 B Street, N. E.
†Ryan, Mark Joseph LL. B., 1921, George Washington University	N. Y.	1431 L Street, N. W.
Schwertner, Frederick LL. B., 1920, George Washington University	D. C.	323 C Street, S. W.
†Smith, Frank Brown LL. B., 1914, George Washington University	Md.	340 D Street, N. W.
*Steele, Francis Willard University of West Virginia; LL. B., 1920, George Washington University	W. Va.	1420 W Street, N. W.
Templeton, Francis Horatio LL. B., 1916, University of North Dakota	N. Dak.	2304 Holmead Place
Thompson, Paul Gladstone B. A., 1904, Burleson College; B. A., 1906, Baylor University; LL. B., 1911, University of Texas	Texas	2805 18th Street, N. W.
Townsend, John William Southwestern Presbyterian University; LL. B., 1920, George Washington University	Fla.	1829 16th Street, N. W.
†Williams, Virginus Faison A. B., 1917, University of North Carolina; LL. B., 1921, George Washington University	N. C.	1829 Rhode Island Avenue, N. W.

SPECIAL STUDENTS

*Altman, Jeanette	D. C.	152 Thomas Street, N. W.
†Andros, Charles Henry C. E., 1907, Rensselaer Polytechnic Institute	D. C.	Care U. S. Patent Office
*Armstrong, Kenneth Potter B. S. of C. E., 1910, Massachusetts Institute of Technology	Mass.	1512 Kearney Street, N. E.
*Baker, Perry Roosevelt	Mo.	4820 Iowa Avenue
Bakersmith, George Horace	Md.	Mt. Ranier, Md.

Name	Legal Residence	Address
†Belt, Mildred A. B., 1917, Goucher College	Md.	1737 T Street, N. W.
*Benson, Mabel Luthera	D. C.	1765 Euclid Street
Bing, Arden Ellsworth	W. Va.	1 Dupont Circle
Bledsoe, Harrison Warren	Kans.	1100 Vermont Avenue
Biehr, Francis Morris	Minn.	1121 Eye Street, N. W.
†Boardman, May Evelyn	N. J.	124 3rd Street, N. E.
*Boysen, Alfred	D. C.	Care Federal Reserve Board
Bransom, Henry Wilton	D. C.	1009 C Street, N. E.
Breen, Emma B.	Texas	Burlington Hotel
*Bromley, Edgar Duvall	D. C.	1297 Harvard Street
*Burden, Katherine B. S., 1914, M. S., 1915, George Washington University	D. C.	2801 18th Street, N. W.
Butler, James Alva	D. C.	Register's Office, Treasury Department.
†Carson, Beatrice Hutchinson	D. C.	1115 9th Street, Apt. 6
†Carver, Leslie Odell	Tenn.	P. O. Box 718, 11th Street Station
Cass, Lewis Williams	Tenn.	Wardman Park Hotel
*Chastain, Dewey Raleigh	D. C.	922 Eye Street, N. W.
Collins, Randolph Spencer	Utah	2151 Mt. Pleasant Street
†Cook, Paul Putnam	Md.	824 Southern Building
*Covington, Hilburn Pace	Miss.	The Chastleton
†Crain, Newel Berryman Baylor University; George Washington University	D. C.	1736 G Street, N. W.
*Crane, Willis LL. B., 1918, Georgetown University	D. C.	Munsey Building
†Cumpiano, Cesar Augusto	Pa.	1331 K Street
Cunningham, Ray Jesse	Utah	2205 Champlain Street
Cupp, Walter Roberts	Idaho	2650 Wisconsin Ave
De Mott, George Lynn B. S., 1919, Syracuse University	Va.	Care U. S. Patent Office
*Dickinson, Herbert Milliard, Jr.	Md.	Box 292, Hyattsville, Md.
Dillon, Arno Verni	D. C.	1731 Eye Street, N. W.
Donnelly, Arthur Edward	R.I.	726 West Virginia Avenue, N. E.
†Drukenbrodt, Faber Joseph Mount Union College; Georgetown College	Ohio.	3725 13th Street, N. W.
Dudley, Denver Layton	Ark.	1317 Shepherd Street, N. W.
*Edson, Suzanne Grace A. B., 1907, Smith College	Vt.	1852 Monroe Street
Egan, Hildred	Wis.	Hotel Stratford
*Elker, Taylor Etheridge	D. C.	1006 Otis Place
Elliott, Thomas Collins	D. C.	1803 35th Street, N. W.
*Ellis, Alvis Thomas	D. C.	1603 Massachusetts Avenue, N. W.
†Engelbert, Elmer Eugene B. S., 1920, University of Minnesota	Minn.	1736 G Street, N. W.
Fallon, Pascal Donald	N. Y.	1311 N Street, N. W.
*Flannagan, Sherman Edward Pennsylvania State College; Maryland State College	Md.	939 K Street, N. W.
Flynn, William J. LL. B., 1920, Georgetown University	Calif.	1146 15th Street, N. W.
†Ganoë, Jessie E.	Pa.	1529 O Street, N. W.
†George, George K. Maluf Beirut (Syria) College	D. C.	1705 14th Street, N. W.
Gewirtz, Morris	D. C.	1234 7th Street, N. W.
Glicksman, Maurice	N. Y.	9117 35th Street, N. W.
Glover, Clarence Kinsey LL. B., Georgetown University; George Washington University	W. Va.	1336 Massachusetts Avenue, N. W.
Graff, Isadore	Wis.	1872 California Avenue
Gripp, James Coburn	D. C.	1823 Lamont Street
Guerth, Max John	N. Y.	2913 Porter Street
*Hann, Albert Edward	Md.	Garrett Park, Md.

Name	Legal Residence	Address
Haire, Homer Hunt	D. C.	715 Shepherd Street
University of Colorado; George Washington University		
*Hammer, William Brother	D. C.	416 Aspen Street
Hansen, Joseph Benjamin	Ill.	3615 10th Street, N. W.
Hanson, Ingvae Theodore	Va.	429 Bond Building
Harris, Robert Bret Harte	Calif.	1762 Columbia Road
L. L. B., 1899, Denver University		
Hartshorn, Robert Henry	Ohio	963 Webster Street
L. L. B., 1899, L. L. M., 1900, Na- tional University Law School		
†Hatch, Carl Tilden	Md.	Cecil Apartment, Baltimore, Md.
Wesleyan University; New York University		
Henderson, Rorie Equard	D. C.	1511 L Street, N. W.
*Hoadley, Maud Elizabeth	Oreg.	The Hadleigh
*Holliman, William Jelks	Ga.	1913 Eye Street, N. W.
L. L. B., Mercer University		
†Huber, Josephine Marie	D. C.	1808 Maryland Avenue
George Washington University		
Hderton, Blair McKenzie	S. C.	1203 N Street, N. W.
Ingels, Clarence Webster	Calif.	1526 L Street, N. W.
B. S., 1911, University of Cali- fornia		
Kayser, Elmer Louis	D. C.	3129 O Street, N. W.
A. B., 1917, A. M., 1918, George Washington University		
Kephart, Calvin Ira	Oreg.	1415 Rhode Island Avenue, N. W.
B. S., 1913, University of Cali- fornia		
King, Merrill Barnett	D. C.	1753 N Street, N. W.
*Knowlton, Morris Willson	Maine	3916 5th Street, N. W.
L. L. B., 1913, George Washington University		
*Koerber, Frederick William	D. C.	1469 Decatur Street
Lake, Russell Brackett	Mass.	1842 Calvert Street
Laycock, Harry Garland	D. C.	418 12th Street, N. W.
Layne, Charles Millard	Tenn.	2027 H Street, N. W.
L. L. B., 1915, Chattanooga Col- lege of Law		
Lee, Richard Henry	Va.	1600 Rhode Island Avenue
*L'Engle, John Bradley	Fla.	204 Wilkes Street, Alexandria, Va.
University of Florida		
*Lewis, Alfred Eli, Jr.	D. C.	The Dresden
Lindner, Edward Thomas	Alaska	1428 Meridian Place
†Lutz, Karl Barr	W. Va.	1808 Ontario Place
A. B., 1920, Bethany College		
*Mahoney, William Henry	R. I.	618 New Jersey Avenue, N. W.
*Marenda, Eugene Carl	D. C.	111 Carroll Street
*Maynard, Arthur Gardiner	Pa.	3115 Georgia Avenue, N. W.
Mellor, William Herbert	Md.	650 E Street, N. E.
*Michelson, Bernadette Serena	Md.	908 Webster Street
Moreau, Albert Jubertie, Jr.	La.	124 B Street, N. E.
Louisiana State University		
†Motlow, George Thompson	Tenn.	825 Southern Building
*Mulligan, Alethea Waldegrove	N. J.	3215 Northampton Street
*Myers, John Austin	Fla.	1410 Belmont Street
*McDonald, Harriet Louis	D. C.	1512 21st Street, N. W.
McKee, Hudson	D. C.	1420 21st Street, N. W.
McLaughlin, Anna Gertrude	Wyom.	Room 1107, War Risk Building
Newman, Howard Ellsworth	D. C.	638 D Street, N. E.
†O'Connell, Dan E.	D. C.	2218 M Street, N. W.
L. B., 1919, Georgetown Univer- sity		
Ohashi, Chuichi	Japan	Japanese Embassy
Imperial University, Tokio, Japan		
†Olson, Stephen	Colo.	1414 Decatur Street
University of Zurich, Switzer- land; University of Denver		

Name	Legal Residence	Address
*Outwater, Kate S. B. A., 1913, M. S., 1915, George Washington University	Va.	620 F Street, S. W.
†Parks, Ethel Mae	D. C.	1801 Irving Street, N. W.
Parnaby, Robert William	Md.	1501 16th Street, N. W.
Parsons, Theophilus Columbia University	N. Y.	1409 New Hampshire Avenue
Phifer, Eugene Hines	D. C.	1927 Summit Place, N. E.
Plowman, Thomas Scales A. B., 1901, LL. B., 1903, University of Ala.	Ala.	2511 14th Street, N. W.
*Pollock, Robert Cleon	Iowa	1817 Kennedy Street
*Ponce, Ramon Lim Princeton University; University of Virginia	P. I.	1539 Eye Street, N. W.
*Quigley, Edward Thomas LL. B., 1903, Georgetown University	N. Y.	1825 You Street
*Rausch, Gustav E. LL. M., National University Law School	Va.	Cherrydale, Va.
*Reany, James A.	D. C.	1204 N Street, N. W.
*Reese, Warren Stone University of South; University of Alabama	Ala.	The Farragut
*Reynolds, Ruth B. S., 1913, Ohio State University	Ohio	1438 N Street, N. W.
Richardson, Robert W.	D. C.	The Portner
*Riddiford, George Gerald	Ohio	2012 O Street, N. W.
Ringle, David, Jr. George Washington University	D. C.	Care Patent Office
*†Rogers, Casie Prescott	D. C.	Marine Barricks
†Rohleder, Grace Irene LL. B.; M. P. L.; LL. M., Washington College of Law	Va.	1315 Belmont Street
Romney, Vernon	Utah	1747 Park Road
Rue, Matthew Lawrence	Md.	Apt. 508, East, Clifton Terrace
*†Scanlon, Theresa Frances	N. Y.	312 2nd Street, S. E.
Schmidt, Harvey William	Texas	The Marlborough
*Sherman, Ralph Romain	Va.	Vienna, Va.
*†Shaw, Connor Bliss Ph. B., 1912, J. D., 1914, University of Chicago	D. C.	Munsey Building
†Shepler, Raymond Vance B. A., 1916, LL. B., 1920, Ohio State University	Ohio	The Albermarle
*Stange, Jacob Herman	Md.	1809 Kenyon Street
Staubly, Ralph Franklin	W. Va.	1327 7th Street, N. W.
Stern, William Fred	Ill.	2611 Adams Mill Road
*Strong, George Eugene P. B., 1917, University of Chicago; A. B., 1919, University of Kansas; LL. B., 1921, George Washington University	Kans.	189 House Office Building
*Sullivan, Paul Aloysius	D. C.	2121 Jocelyn Street, Chevy Chase, D. C.
*Tatlock, John M. A., 1908, William College	N. Y.	Hotel La Fayette
*Towe, Durwood Noylutt	N. C.	1786 G Street, N. W.
*Trammell, Charles Monroe Ph. B., 1907, Emory College; LL. B., 1909, Vanderbilt University	Fla.	1819 G Street, N. W.
Trimble, Josephus Clements Fairmount College; Emory College; LL. B., University of Chattanooga	Tenn.	1712 3rd Street, N. E.
Tucker, Charles Francis	Texas	1736 G Street, N. W.
*†Turner, Sallie Alston Marshall College; Greens College for Women	N. C.	1730 Que Street, N. W.
*Voll, John Eugene	Ind.	1529 Rhode Island Avenue

Name	Legal Residence	Address
*Voria, Bruce Harvy	Md.	Care Interstate Commerce Commission
*Waddell, Roland Aera A. B., 1912, Washington and Lee University	D. C.	1207 Connecticut Avenue
*Watson, John Alfred	Md.	1322 Vermont Avenue
†*Weaver, William B. Alabama Polytechnic Institute	Ala.	2321 Ashmead Place
Weema, Frank Calvert LL. B., Washington College of Law	Md.	3926 New Hampshire Avenue
West, Earle H. Peabody College; LL. B., 1916, Cumberland University	Tenn.	1317 Shepherd Street, N. W.
Wilson, Robert Whipple	D. C.	3007 Que Street, N. W.
Winfield, Kenneth Joseph	D. C.	1227 15th Street, N. W.
*Womersley, Charles Edwin	Colo.	4122 8th Street, N. W.
Wyatt, Zoe May Schier	Ind.	2116 Connecticut Avenue
*Yeatman, Charles Burgee	D. C.	1013 4½ Street, S. W.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Alabama	17	New Mexico	2
Arkansas	8	New York	53
California	12	North Carolina	16
Colorado	5	North Dakota	7
Connecticut	19	Ohio	24
Delaware	5	Oklahoma	16
Florida	5	Oregon	4
Georgia	11	Pennsylvania	46
Idaho	8	Rhode Island	6
Illinois	28	South Carolina	6
Indiana	24	South Dakota	8
Iowa	17	Tennessee	21
Kansas	12	Texas	25
Kentucky	10	Utah	16
Louisiana	7	Vermont	4
Maine	7	Virginia	49
Maryland	47	Washington	5
Massachusetts	16	West Virginia	21
Michigan	6	Wisconsin	12
Minnesota	14	Wyoming	1
Mississippi	5	Alaska	1
Missouri	15	District of Columbia	222
Montana	1	Hawaii	1
Nebraska	7	Philippines	6
Nevada	2	Italy	1
New Hampshire	3	Japan	1
New Jersey	11	Mexico	1

COLLEGES REPRESENTED BY GRADUATES

Albion College	1	Mount Union College	1
University of Arkansas	4	National Academy, Philip-	
Baylor University	1	pines	1
Brigham Young University	1	University of Nebraska	1
Brown University	2	Newberry College	1
Burleson College	1	New York University	2
University of California	3	University of North Caro-	
Centre College of Kentucky	1	lina	1
University of Chattanooga	1	Ohio State University	2
University of Chicago	5	University of Pennsylvania	3
University of Cincinnati	2	Pennsylvania State College	1
College of the City of New		Philadelphia College of	
York	1	Pharmacy	1
Clemson Agricultural Col-		Pittsburgh University	3
lege	1	Princeton University	5
Colby College	3	Randolph-Macon College	1
Colgate University	1	Rensselaer Polytechnic In-	
University of Colorado	1	stitute	2
Columbia University	3	Rice Institute	1
Cornell University	4	Shorter College	1
Dartmouth College	3	Smith College	1
Davidson College	1	Stevens Institute of Technol-	
Delaware College	1	ogy	1
Denison University	1	Swarthmore College	1
University of Denver	1	Syracuse University	4
DePauw University	1	University of Texas	1
Dickinson College	1	Trinity College	1
Earlham College	2	United States Naval Acad-	
Emory & Henry College	2	emy	9
Fairmount College	1	University of Utah	2
George Washington Univer-		Vanderbilt University	2
sity	26	Vassar College	1
Goucher College	3	University of Vermont	1
Harvard University	2	University of Virginia	1
Hiram College	1	Virginia Polytechnic Insti-	
University of Idaho	2	tute	1
University of Illinois	3	Wesleyan University	2
State University of Iowa	2	Western Maryland Univer-	
Johns Hopkins University	2	sity	3
University of Kansas	2	West Virginia University	1
Lafayette College	1	William and Mary College	2
Lenox College	1	Women's College, Richmond,	
Louisiana State University	1	Virginia	1
Maryland State College	1	Worcester Polytechnic Insti-	
Massachusetts Institute of		tute	2
Technology	4	Yale University	4
Miami University	1		
University of Michigan	2	Total	180
Middlebury College	1		
Millikin University	1	Counted more than once	7
Mississippi Industrial Insti-		Number of college gradu-	
tute and College	1	ates	173
University of Missouri	4	Number of colleges repre-	
Monmouth College	1	sented	85

SUMMARY

Candidates for Degree of Bachelor of Laws:		
	1920-1921	1919-1920
First Year _____	383	426
Second Year _____	243	121
Third Year _____	96	94
Total _____	722	641
Candidates for Degree of Master of Laws _____	39	26
Total _____	761	667
Counted twice _____	6	4
Total Candidates for degrees _____	755	663
Special Students _____	143	90
Total _____	898	753
Counted twice _____	1	1
Total All Students _____	897	752
Candidates for degrees who are college graduates _____	173	147
Percentage _____	22.9	22.2
Candidates for degrees who have had all or part of a college course _____	438	341
Percentage _____	58.0	51.4

GEOGRAPHICAL DISTRIBUTION

Alabama	22	Rhode Island	10
Arizona	2	South Carolina	15
Arkansas	10	South Dakota	15
California	28	Tennessee	29
Colorado	14	Texas	43
Connecticut	30	Utah	19
Delaware	7	Vermont	12
Florida	10	Virginia	219
Georgia	28	Washington	8
Idaho	4	West Virginia	27
Illinois	106	Wisconsin	22
Indiana	73	Wyoming	2
Iowa	49	Alaska	1
Kansas	35	District of Columbia	2167
Kentucky	39	Hawaii	1
Louisiana	10	Philippines	16
Maine	5	Porto Rico	7
Maryland	175	Argentina	1
Massachusetts	75	Canada	2
Michigan	35	Central America	3
Minnesota	24	China	13
Mississippi	20	Czecho-Slovakia	1
Missouri	54	Egypt	1
Montana	3	Finland	1
Nebraska	24	Greece	2
Nevada	3	Ireland	2
New Hampshire	10	Italy	2
New Jersey	39	Japan	3
New Mexico	4	Korea	2
New York	128	Latvia	1
North Carolina	33	New Zealand	1
North Dakota	16	Peru	2
Ohio	93	Russia	2
Oklahoma	25	Siam	1
Oregon	4	Sweden	1
Pennsylvania	176	Switzerland	2

GENERAL SUMMARY

TEACHING STAFF

In many instances members of the Teaching Staff only give part time to the University:

Professors	97
Associate Professors	7
Associates	16
Assistant Professors	20
Lecturers and Instructors	84
Assistants and Demonstrators	58
—	282

STUDENTS REGISTERED IN THE UNIVERSITY DURING 1920-21

Department of Arts and Sciences

School of Graduate Studies	229
Columbia College	1968
College of Engineering	540
Teachers College	307
—	3044

Professional Schools

Medical School	113
Law School	898
College of Pharmacy	14
—	1025

Total	4069
Duplicates	30
—	4039

Summer School, 1920

Summer School, Arts and Sciences	763
Summer School, Law	270
—	1033

COMMENCEMENT, 1920

HONORARY DEGREES

Doctor of Divinity

JAMES TOWNSEND RUSSELL

HERBERT SHIPMAN

Doctor of Science

EDWARD WILLIAM NELSON

Doctor of Laws

WARREN GAMALIEL HARDING

IRVINE LUTHER LENROOT

A. MITCHELL PALMER

JOHN JOSEPH PERSHING

AUCKLAND CAMPBELL GEDDES

Bachelor of Arts

JAMES MARRIL RYLAND ADAMS	District of Columbia
LESLIE HAROLD ADAMS	District of Columbia
RUTH FRANCES ALLEN	District of Columbia
JOHN ANDREW AMAN (With distinction)	Maryland
JOHN LEONARD BAER	Pennsylvania
CHARLES OLIN BALL	Kansas
JACOB THOMAS BASSECHES	New York
ELLA MILDRED BENNETTS	District of Columbia
SUE HUNT BOYD	North Carolina
THOMAS BROWNE	District of Columbia
EVA REBECCA BUCHMAN	Iowa
CLEVELAND CABLER	Arkansas
ELMA BEBEE CARR	Kentucky
LEON EMANUEL CARTMELL	Mississippi
PAUL HAMILTON CATHCART	Virginia
WILLIAM JAMES CHEYNEY (With distinction)	Virginia
DORIS MABLE COCHRAN	District of Columbia
CASPER LEHMAN COTTRELL	Pennsylvania
ELVA ELLEN COUGHLIN	District of Columbia
FLORENCE CUMMINGS	District of Columbia
JULIA IRENE DANIEL (With distinction)	District of Columbia
RAYMOND GARFIELD DE FREES	Iowa
FREDERICK MORSE DICKEY	District of Columbia
JOHN PAUL EARNEST, JR.	District of Columbia
SAMUEL GALE EBLING	Ohio

MAY BLANCHE EINSTEIN (With distinction)	District of Columbia
BERNHARD EDWIN ERICKSON (With distinction)	Illinois
CHARLES GESCHICKTER (With distinction)	District of Columbia
WILLIAM GILLIGAN	Connecticut
SOL S. GLUCK (With distinction)	District of Columbia
LEMUEL EUGENE GREENE	Louisiana
KLEIN KINZER HADDAWAY	Maryland
SARA HOGG	Georgia
ALEC HORWITZ (With distinction)	District of Columbia
FAY IRENE HUSE	Montana
LAWRENCE OSCAR JACKSON	Colorado
RICHARD ALEXANDER KELLY	Virginia
HELOISE LAZARO	Louisiana
NELSON LITTELL	Indiana
QUINTER MARCELLUS LYON	District of Columbia
MARTHA STEELE MCGREW	Tennessee
DETLOW MAINSCH MARTINSON	District of Columbia
THOMAS RAY MANNING	Pennsylvania
SARAH ELIZABETH MAUL	Maryland
GERTRUDE METZEROTT	District of Columbia
EDDIE LANCE MILLS	Texas
HELEN MINER	Ohio
JIMMIE ETHEL MONTGOMERY	Alabama
MILDRED JOSEPHINE MOORE (With distinction)	District of Columbia
GODFREY LEON MUNTER	Illinois
HENNING CUNNINGHAM NELMS	District of Columbia
AGNES CHRISTINE NELSON	North Dakota
HENRY JANNEY NICHOLS	District of Columbia
MILDRED PADGETT	District of Columbia
HARRY PERLIN	Connecticut
NONA BETTE POLLNER	District of Columbia
DARWIN JESSE POPE (With distinction)	District of Columbia
MARGARET MARIE PREINKERT	District of Columbia
ALBERT EMMET REITZEL	North Carolina
OLIVE AMRITA REYNOLDS	Maryland
MARTHA ELIZABETH SCHAAFF	District of Columbia
MILDRED MIRIAM SCHAUWEKER	Ohio
FRANK SCHELLFEFFER	Illinois
ERNEST ALDINE SEE	West Virginia
CHARLOTTE GORDON STIMPSON	District of Columbia
BEATRICE WILKINS TAIT	District of Columbia
LEROY WILLIAM TILTON	Texas
AUGUSTUS JAQUELINE TODD	District of Columbia

MARGARET WHITFORD (With distinction)	District of Columbia
EUNICE WHYTE	District of Columbia
VOLNEY WINFIELD WORTMANN	Oklahoma
ETHEL CRAIGEN YOHE	District of Columbia

Bachelor of Science in Medicine

MORRIS I. BIERMAN	Minnesota
THOMAS CARLETON THOMPSON	Pennsylvania
FRANK LOUIS WILLIMAN	District of Columbia

Bachelor of Science in Civil Engineering

CHARLES FRANCIS BLAKELY	Nebraska
ALBERT ARTHUR MCENTEE	Illinois
ODVER HARRISON MILLER	Oklahoma
HEMAN SMITH WARD	District of Columbia

Bachelor of Science in Mechanical Engineering

BENJAMIN CARPENTER CRUICKSHANKS	District of Columbia
FRANK WHITCHER MARTIN	District of Columbia
FREDERIC VEAZEY WHETHERILL	Oregon

Bachelor of Science in Electrical Engineering

RAYMOND BARTON HARDING	Virginia
JOHN SPASOFF	California

Bachelor of Science in Chemistry

CECIL HAMMOND BADGER	Pennsylvania
MEYER WEINSTEIN (With distinction)	District of Columbia

Bachelor of Arts and Bachelor's Diploma in Education

LILLIE PORTER BAILEY	District of Columbia
ALMA BARKER	District of Columbia
SIGNE GJERDRUM BARTSCH	District of Columbia
GAIL BRUCE	Ohio
HENRYETTE BRUM	District of Columbia
LILLIE MARIE CONNELL	District of Columbia
LOUISE ISABEL COVINGTON	Missouri
HILDA NORTH DULAC	Maryland
ARLINE HUGHES DUFOUR	District of Columbia
MARGARET TRIMBLE GADDIS	District of Columbia
ELLA GARDNER	District of Columbia
LELIA BAILEY HARDELL	District of Columbia
MARY ELIZABETH HUMPHREY	District of Columbia

HARVEY EARL KAUFFMAN	Pennsylvania
MARIE MACMILLAN JONES	Washington
CORA MCCARTY	District of Columbia
BESSIE BOYD MULFORD (With distinction)	District of Columbia
VIOLA OFFUTT	Maryland
LILLIE MAY PAYNE (With distinction)	Virginia
MARGARET DAVIS REED (With distinction)	District of Columbia
GRETCHEN RING	District of Columbia
HARRIET SHEPHERD ROBERTS	Pennsylvania
BERTHA RODGERS	District of Columbia
EDNA SOPHIA SMITH	Michigan
GERTRUDE ELIZABETH WALTER	District of Columbia
MOLLIE BEERS WEYMAN (With distinction)	District of Columbia
MARY ELIZA WHEATLEY	Virginia

Master's Diploma in Education

JENNIE LOYALL	Georgia
A. B., 1912, Wesleyan College.	
ETHEL SUMMY	District of Columbia
A. B., 1918, George Washington University.	
HAROLD ELLSWORTH WARNER	District of Columbia
A. B., 1913, George Washington University.	

Doctor's Diploma in Education

JOHN ABSALOM GARBER	Virginia
A. B., 1891, Bridgewater College.	
A. M., 1915, George Washington University.	
ELON GALUSHA SALISBURY	District of Columbia
B. S., 1911, Union College, Nebraska.	
A. M., 1917, George Washington University.	

Doctor of Medicine

WILLIAM MARSHALL BLAND	Virginia
EVERETT LAMONT BRADLEY	District of Columbia
JOSE EUSEBIO CRESPO	Porto Rico
GEORGE KENDAL DAZEY	Texas
DON HASTINGS DUFFIE	District of Columbia
WILLIAM DENNIS GOODMAN	Virginia
HAROLD MOORE GRIFFITH	Pennsylvania
THOMAS HIRST HAYES	Virginia
BEN HOLLANDER	California
RUSSELL KUHNER HOLLINGSWORTH	District of Columbia
KANG LI	China
ABRAHAM MYER LITVAK	New York

NICHOLAS A. MANDELOS.....	District of Columbia
JOHN ERNEST MCKENZIE.....	South Carolina
HERBERT PERCY RAMSEY.....	District of Columbia
NORMAN PHILIP SCALA.....	District of Columbia
HENRY WESTON BARNUM STIBBS.....	New York
THOMAS CARLTON THOMPSON.....	Pennsylvania
FRANK LOUIS WILLIMAN.....	District of Columbia
JACK BERTOLETTE ZERBE.....	Pennsylvania

Nurses Certificates

BEATRIZ LOUISE ARMIJO.....	New Mexico
EVA ADELIA BEARD.....	West Virginia
EVA ELLEN JANSON.....	Ohio
GRACE EVELYN MERRICK.....	Iowa
IRMA MYRTLE SMITH.....	Maryland
GERTRUDE ALMA STEWART.....	District of Columbia

Doctor of Dental Surgery

FRANK J. COHEN.....	Massachusetts
MARIAN CHIGER.....	New York
NATHAN CONE.....	New Jersey
DAVID HOLSTEIN.....	New Jersey
FRANCES R. JESKOWITZ.....	New York
CALLIE MARCUS.....	New Jersey
WILLIAM WALTER MARR.....	District of Columbia
MAURICE ROBERT OLINGER.....	New Jersey
SAMUEL SIDNEY SILBERBERG.....	New York
MORRIS SILBERBERG.....	New Jersey
LEO SOLOW.....	New York
HENRY ALBERT SWANSON.....	North Dakota
LOUIS M. WEBER.....	New Jersey

Bachelor of Laws

EDWIN FRANKLIN ALBERTSWORTH.....	Maryland
A. B., 1915; A. M., 1916; Ph. D., 1918, George Washington University.	
ELLSWORTH CHAPMAN ALVORD.....	Wisconsin
A. B., 1917, University of Wisconsin.	
ALVIN JOHNSON BARNHART.....	West Virginia
CHARLES ROWAN BELL.....	Kentucky
OWEN BLACK.....	Oklahoma
JOHN HARRY BLOOM.....	Michigan
EUGENE FRANCIS BOYER.....	Connecticut
Ph. B., 1917, Yale University.	

JOSEPH MORTIMER BRYANT.....	Utah
CLARENCE EDGAR BUSH.....	District of Columbia
ELMER BRIGGS COLLINS.....	Alabama
ELIODORO PALACIO CORPUS.....	Philippine Islands
CASSIUS MCCLELLAN DOWELL.....	Illinois
BURTON FULLER.....	Iowa
A. B., 1915, Central University of Iowa.	
WILEY MADISON FULLER.....	Texas
ALLEN JOHN FURLOW.....	Minnesota
WILLIAM JACOB HECKMANN.....	Iowa
CANDOR CAYWOOD HENRY.....	Tennessee
A. B., 1915, George Washington University.	
SAMUEL THEODORE HOLMGREN.....	New Hampshire
MAXWELL JAMES (With distinction).....	New York
B. S., 1913, College of the City of New York.	
ROBERT CHARLES KILMARTIN, JR.....	District of Columbia
THOMAS CLAFFEY LAVERY (With distinction).....	Missouri
CHARLES WILLIAM LEVINSON.....	Maryland
A. B., 1915, Johns Hopkins University.	
ELLIS WOOSTER MANNING.....	Oklahoma
LUCY RAINS MANNING.....	Oklahoma
ROBERT DANIEL MURPHY.....	Wisconsin
BERTHA ELIZABETH PABST.....	New York
ISRAEL PARIS.....	Massachusetts
S. B., 1914, Massachusetts Institute of Technology.	
JOHN H. PATTRICK.....	Missouri
A. B. and B. S. in Ed., 1912, University of Missouri.	
ROBERT PETER.....	Maryland
CARLTON MORRELL RANDALL.....	Pennsylvania
MARY JANE RAYMOND.....	District of Columbia
MAXIMILIAN F. REGES.....	New Jersey
HENRY JEFFERSON RICHARDSON.....	Arkansas
SOLOMON SHAPPIRO (With distinction).....	District of Columbia
B. Ch., 1915, University of Michigan.	
JAMES PATRICK SHEA.....	District of Columbia
A. B., 1915, Georgetown College.	
ABE WALLINGFORD STANLEY.....	Missouri
FRANCIS WILLARD STEELE.....	West Virginia
JOHN WILLIAM TOWNSEND.....	Florida
JAMES SNOWDEN TURP (With distinction).....	New Jersey
ARTHUR VAN METER.....	Ohio
A. B., 1913, Ohio State University.	
BERT VAN MOSS.....	Oklahoma
DANIEL JAMES WATERS.....	District of Columbia

Master of Patent Law

BATES MITCHELL STOVALL.....District of Columbia
LL. B., 1917, George Washington University.

Master of Laws

TREMAINE KELLOGG BURROWS.....New York
A. B., 1897, University of Nebraska.
LL. B., 1917, George Washington University.
ARTHUR HERMAN FAST.....Kansas
A. B., 1909, Baker University.
LL. B., 1912, University of Kansas.
ROBERT TRISCH WILKIE.....Indiana
A. B., 1909; LL. B., 1911, Indiana University.

Civil Engineering

WATSON DAVIS.....District of Columbia
B. S. in C. E., 1918, George Washington University.
DANIEL WILLIAM KESSLER.....District of Columbia
B. S. in C. E., 1908, University of Missouri.

Master of Science

PEARL LEE BOONE.....District of Columbia
A. B. and Bachelor's Diploma in Education, 1919, George Washington University.
RUTH BUCHANAN.....Pennsylvania
B. S., 1919, University of Pittsburgh.
WILLIAM ANGUS CORLEY.....Lt. Comdr., U. S. N.
Graduate, 1912, U. S. Naval Academy.
ROBERT DAUBNEY.....England
M. R. C. V. S., 1913, Royal College of Veterinary Surgeons.
MORGAN WILLIAM EVANS.....Ohio
B. S. A., 1906, Cornell University.
HERMAN EDWARD FISCHER.....Lt. Comdr., U. S. N.
Graduate, U. S. Naval Academy.
WILBUR AUGUST GERSDORFF.....District of Columbia
B. S. in Chem., 1918, George Washington University.
BONIFANT HAMILTON.....District of Columbia
B. S. in Chem., 1918, George Washington University.
MURRAY OSWALD HAYES.....District of Columbia
A. B., 1914, Brigham Young University.
FRANK A. HORNADAY.....District of Columbia
A. B., 1907; M. D., 1910, George Washington University.
OLLIE LEE LEWIS.....Kentucky
A. B., 1917, George Washington University.

- CLARENCE LE ROY MEISINGER _____ Nebraska
 B. S., 1917, University of Nebraska.
- LEWIS ADOLPHUS PALEY _____ Iowa
 B. S. in Chem., 1917, George Washington University.
- WILLIAM MAURICE WIESENBERG _____ New York
 B. S., 1914, College of the City of New York.
 C. E., 1918, Polytechnic Institute of Brooklyn.
- CARLETON HERBERT WRIGHT _____ Lt. Comdr., U. S. N.
 Graduate, 1912, U. S. Naval Academy.
- Master of Arts
- HARTWELL STANSBURY ADKINS _____ Maryland
 B. A., 1908, Washington and Lee University.
- WALTER CHRISTIAN BRANDES _____ District of Columbia
 Ph. B., 1916, Yale University.
- LINO JUAN CASTILLEJO _____ Philippine Islands
 A. B., and Bachelor's Diploma in Education,
 1917, George Washington University.
- DOROTHY SMALLWOOD GEARE _____ District of Columbia
 A. B., 1912, George Washington University.
- FLORENCE LILLIAN HANFORD _____ Connecticut
 A. B., 1915, Smith College.
- WILLIAM FRANKLIN HAYWOOD _____ Texas
 A. B., 1917, Howard Payne College.
- CHARLES MADISON HEWETT _____ Iowa
 A. B., 1917, Upper Iowa University.
- WILLIAM ELISHA HONEYCUTT _____ North Carolina
 A. B., 1919, Wake Forest College.
- MERRITT EUGENE LINDSEY _____ New York
 Diploma, 1901, University of New York.
 B. Ped., 1902; B. S., 1904, Ohio Northern University.
- JENNIE LOYALL _____ Georgia
 A. B., 1912, Wesleyan College, Ga.
- BRICE MARTIN MACE, JR. _____ District of Columbia
 A. B., 1908, Cumberland University.
- CATHARINE REGIS MORAN _____ District of Columbia
 A. B., 1919, George Washington University.
- HELEN MARIE CECILIA ROSE _____ Illinois
 Ph. B., 1919, University of Chicago.
- DOROTHY BERKSHIRE SCOTT _____ District of Columbia
 A. B., 1915, University of Omaha.
- EDGAR CLARKE SOULE _____ Texas
 A. B., 1919, University of Texas.
- MARY EVELYN STEGER _____ District of Columbia
 A. B., 1918, George Washington University.

- JEANNETTE BLANEY STRAYER.....New York
 A. B., 1919, George Washington University.
- MARY RUTH SULLIVAN.....Virginia
 A. B., 1913, Fredericksburg College.
- ETHEL ISABELLE SUMMY.....District of Columbia
 A. B., 1918, George Washington University.
- HAROLD ELLSWORTH WARNER.....District of Columbia
 A. B., 1913, George Washington University.
- JESSIE LANDER WELLS.....District of Columbia
 A. B., 1911, University of Colorado.
- MARY FELICIA WILLIAMS.....Florida
 A. B., 1914, Florida State College for Women.
- GRACE VIOLA WRIGHT.....District of Columbia
 A. B., 1919, George Washington University.
- EN TSUNG YEN.....China
 A. B., 1918, Shanghai Baptist College.
- AUGUSTA FREEMAN YOUNG.....North Dakota
 A. B., 1918, George Washington University.

Doctor of Philosophy

- PETER JOHN DONK.....District of Columbia
 B. S. in Chem., 1917, George Washington University.
- DUDLEY WARD FAY.....New York
 A. B., 1907, Williams College.
- JOHN ABSALOM GARBER.....Virginia
 A. B., 1891, Bridgewater College.
 A. M., 1915, George Washington University.
- EWART WILLIAM HOBBS.....District of Columbia
 LL. M., 1910, National University Law School; A. B., 1916,
 George Washington University; A. M., 1917.
- ALANSON DAVID MOREHOUSE.....District of Columbia
 M. E., 1893, Cornell University.
- WILLIAM EDWIN SAFFORD.....District of Columbia
 Graduate, 1880, U. S. Naval Academy.
- ELON GALUSHA SALISBURY.....District of Columbia
 B. S., 1911, Union College; A. M., 1917, George Wash-
 ington University.
- BENJAMIN SCHWARTZ.....District of Columbia
 A. B., 1911, College of the City of New York; A. M.,
 1913, Columbia University.

DEGREES CONFERRED AT THE FALL CON- VOCATION, 1920

Bachelor of Arts

OLIVER EUGENE BURTON	West Virginia
JOHN K. BUTKIEWICZ	District of Columbia
MONTGOMERY M. MCCONKEY	Minnesota
DORIS MCKENZIE	District of Columbia
FRANCES LUCILE MCMILLAN	Tennessee
GEORGE F. MOULTON	Illinois
CHARLES EDWARD ROYER	Pennsylvania
RICHARD L. RYAN	District of Columbia
ELIZABETH KATHERINE SANDBORN	Kansas

Bachelor of Arts and Bachelor's Diploma in Education

EUGENE SCOTT BURROUGHS	Maryland
JOHN SACKE GAMBS	Ohio
HAROLD PERCY RUE	Pennsylvania
MAURICE MERLE SMITH	Oklahoma

Doctor of Medicine

WALLACE BRUCE BAKER	District of Columbia
RALPH GREGORY BEACHLEY	Maryland
FRED BERNARD FREELAND	District of Columbia
CHARLTON R. KING	Alabama

Bachelor of Laws

WALTER LEE BROWN	Arkansas
CALVIN CLARKE	Kentucky
GRACE MARIE EDDY	Wisconsin
EDWARD ANTON JACOBSON	Minnesota
A. B., Gustavus Adolphus College	
JOSEPH WESLEY KIMBEL	Pennsylvania
ANDREW MARKHUS	Idaho
A. B., University of Idaho.	
FRANK BENNETT MESEKE	Indiana
Ph. B., 1912, University of Chicago.	
FRITZ SCHWERTNER	District of Columbia
HAROLD EMERSON STAFFORD	Wisconsin
LEWIS AUGUSTUS WRIGHT	District of Columbia

Master of Arts

CARL COKE RISTER	Texas
A. B., 1915, Simmons College, Texas.	

MARY KIRK SIMPSON.....District of Columbia
A. B., 1898, Grove City College.
RAYMOND LEO WELTY.....Kansas
B. S. in Ed., 1918, Kansas Normal School.

DEGREES CONFERRED AT THE FEBRUARY CONVOCATION, 1921

HONORARY DEGREES

Master of Arts

CLIFFORD KENNEDY BERRYMAN
PERMEAL JANE FRENCH

Doctor of Divinity

ROBERT HASTINGS NICHOLS

Doctor of Humane Letters

CHARLES HENRY BETTS
SAMUEL RICHARD FULLER
ALANSON BIGELOW HOUGHTON
GEORGE DUDLEY SEYMOUR

Doctor of Letters

FRANCES PARKINSON KEYES
JULIA MARLOWE SOTHERN

Doctor of Science

FREDERICK VERNON COVILLE
HOWARD LINCOLN HODGKINS
CHARLES WILLIAMSON RICHARDSON
FRANK SPRINGER

Doctor of Laws

MABEL THORPE BOARDMAN
FREDERICK CARLOS FERRY
GEORGE HIGGINS MOSES
LUTHER WRIGHT MOTT
CHARLES WELLMAN PARKS
KEY PITTMAN
CHARLES ALEXANDER RICHMOND
ARTHUR CHARLES ROUNDS

BERTRAND HOLLIS SNELL
 GEORGE SUTHERLAND
 ROBERT MEANS THOMPSON
 V. ROLANDI RICCI
 BELTRAN MATHIEU
 JEAN ADRIEN ANTOINE JULES JUSSEURAND

Bachelor of Arts

DONALD GEORGE COLEMAN	Kansas
THOMAS FRANCIS FARRELL	Massachusetts
ALYS MILLSATS GOFORTH	Louisiana
ARTHUR JACKSON GRONNA	North Dakota
LEWIS IRVING HARRISON	Connecticut
DANIEL LUTHER HALDERMAN	Pennsylvania
EVERETT ALBERT HELLMUTH	Virginia
FRANK OSCAR LUNDSTROM	Colorado
ALBERT JOSEPH MOTTERN (With distinction)	Ohio
JAMES BYRNE RANCK (With distinction)	District of Columbia
RALPH S. SCOTT	Maryland
GEORGE SHISLER	West Virginia
SHERWOOD PAGE VAN WATERS	New York
JESSIE MARY WOLCOTT	Iowa

Bachelor of Arts and Bachelor's Diploma in Education

MARGARET JANE EDIC	New York
MARIE ADA THOMPSON	Mississippi
MARGARET JOSEPHA BASHFORD	Virginia

Doctor of Medicine

JULIAN MENZO HOWE	District of Columbia
-------------------	----------------------

Bachelor of Laws

RAYMOND BISHOP CANFIELD	District of Columbia
Ph. B., June, 1910, Yale University.	
JOSEPH CLIFFORD CURRY	Tennessee
JAMES MORRIS HAMMOND	Nevada
CATO BURDGE HURD	Indiana
LEWIS MAYERS	New York
FRED NASH OLIVER	Texas
MARK JOSEPH RYAN	New York
WILLIAM SAULSBURY	Delaware
A. B., 1887, Harvard University.	

GEORGE EUGENE STRONG..... Kansas

Ph. B., 1917, University of Chicago.

A. B., 1919, University of Kansas.

MAURICE MATTHEW DUFFY..... Washington

VIRGINIUS FAISON WILLIAMS..... North Carolina

A. B., University of North Carolina.

Master of Science

ALICE IVA WHITSON..... North Carolina

B. S., 1912, North Carolina State College for Women.

Master of Arts

GERHARD EMMANUEL LENSKI..... Ohio

A. B., 1910, Capital University.

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THOMAS N. FOLEY

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MISS JULIA L. V. MCCORD

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Treasurer

MRS. SAMUEL E. LEWIS

Recording Secretary

MISS MARY BRICKENSTEIN

Assistant Treasurer

MRS. WALLACE MCK. STOWELL

DIRECTORY

OFFICERS OF GOVERNMENT, ADMINISTRATION AND INSTRUCTION

The number enclosed in parentheses indicates the page in this catalogue on which may be found the degrees and title of the officer.

ABBE, TRUMAN	3737 Huntington Place.
ACKER, GEORGE N. (126)	913 16th St.
ACKER, G. N., 2nd. (135)	2015 Que St.
ALBION, M. S. (15)	1814 G St., Apt. 1½.
ALDEN, L. R. (14) (192)	Union Trust Building.
AMAN, W. F. (17)	Mt. Rainer, Md.
AMES, N. B. (15)	Clarendon, Va.
ANDERSON, R. N. (16)	60 Randolph Place.
ARNOLD, R. (16)	24 2nd St. N. E.
BARTHOLOMEW, W. T. (16)	1209 Crittenden St.
BARTSCH, P. (13)	National Museum.
BASSLER, R. S. (13)	National Museum.
BEALE, R. S. (135)	1318 19th St.
BENNETTS, MILDRED (16)	1941 1st St.
BERNTON, H. S. (128)	1333 G St.
BIBB, A. B. (13)	1905 H St.
BINGMAN, C. E. (134)	1801 K St.
BISCHOFF, A. N.	1435 K St.
BLOCK, RAE	1654 Hobart St.
BOLWELL, R. W. (14)	3408 Lowell St.
BOLTON, B. R. (137)	Episcopal Hospital.
BOOTH, N. M.	2101 G St.
BORDEN, D. L. (129)	The Rochambeau.
BORDEN, W. C. (126)	2306 Tracy Place.
BOSWORTH, R. (16)	2023 G St.
BOVEE, J. W. (127)	The Rochambeau.
BOWEN, W. S. (130)	The Farragut.
BRANDENBURG, E. C. (192)	Fendall Building.
BRECHT, N. D. (134)	609 22nd St.
BREEDING, E. G. (135)	Stoneleigh Court.
BRIGHAM, G. R. (15)	The Naples.
BROWN, B. (14)	806 17th St.
BROWN, T. B. (14)	Clifton, Va.
BURCHELL, N. L. (5)	1325 F St.
BUTKIEWICZ, J. K.	312 G St. N. E.
BUTLER, W. K. (126)	1207 M St.

CAHILL, J. A. (137)	1940 Biltmore St.
CAMPBELL, E. M. (136)	1757 Columbia Road.
CAJIGAS, TOMAS (129)	31 E. Oxford St.
CARMICHAEL, R. B. (127)	818 17th St.
CARR, W. B.	1624 Eye St.
CARROLL, M. (13)	1741 New York Ave.
CHAPMAN, R. M.	St. Elizabeth's Hospital.
CHACE, D. C. (15)	Care Even. Star News. Co.
CHAPMAN, K. (16)	2023 G St.
CHENEY, W. L. (14)	427 Irving St.
CHIPMAN, C. N. (132)	1420 Rhode Island Ave.
CHRISTIE, A. C. (128)	1621 Connecticut Ave.
CHURCHILL, G. M. (14)	505 River R. Bethesda, Md.
CLARKE, B. L. (15)	2023 G St.
CLARKE, F. M. (13)	1717 20th St.
CLARK, G. W.	Naval Medical School.
CLAYTOR, T. A. (130)	1826 R St.
CLEPHANE, W. C. (192)	Wilkins Building.
COHEN, R.	439 M St.
COHEN, L. (14)	1855 Calvert Place.
COLLIER, C. S. (192)	1435 K St.
COLLIER, WILLIAM MILLER (5)	2400 16th St.
CONKLIN, C. B. (131)	The Rochambeau.
CONNALLY, M. M.	1435 K St.
COPELAND, E. P. (131)	The Rockingham.
CORBY, C. I. (5)	Rockville, Md.
COREY, G. H. (16)	1511 L St.
COUCH, J. F.	1335 H St.
COUTINHO, J. S. (14)	Pan American Union.
CRABTREE, EUNICE (16)	2023 G St.
CROISSANT, D. C. (14)	1717 Que St.
CRUICKSHANKS, B. C. (15)	1336 Fairmont St.
CULLOM, E. (15)	1424 R St.
CULVER, C. W. (135)	1720 M St.
CUTTING, R.	1335 H St.
DANIEL, F. C. (15)	McKinley M. T. School.
DAVIS, H. C. (5)	1919 18th St.
DAVIS, W. T. (128)	926 Farragut Square.
DEFANDORE, J. H. (130)	1335 H St.
DEFFENBAUGH, W. S. (115)	U. S. Bureau of Education.
DIERSTEIN, A. L.	2023 G St.
DODD, A. M. (192)	1435 K St.
DONNALLY, H. H. (131)	1612 Eye St.
DOYLE, A. M. (15)	1365 Oak St.

DOYLE, H. G. (14)	5416 23rd St.
EANET, P. (16)	2023 G St.
EARNEST, J. P. (192)	606 F St.
EASTON, C. D.	1335 H St.
EDSON, J. J. (5)	915 F St.
EHRMAN, H. A. (15)	2023 G St.
ELDRIDGE, W. W. (135)	1335 H St.
ELLISON, E. M. (133)	1730 M St.
ENO, GLENN (192)	1435 K St.
ERWIN, J. T. (14)	1819 G St.
EVANS, M. B. (15)	3432 Newark St.
EVERETT, E. H. (5)	23rd and Sheridan Circle.
FECHT, A. J. (15)	2023 G St.
FERSON, M. L. (192)	1435 K St.
FILLEBROWN, J. P. (133)	Stoneleigh Courts.
FISH, MILDRED (117)	2023 G St.
FLATHER, W. J. (5)	Riggs National Bank.
FOLEY, T. M. (131)	1334 19th St.
FOWLE, F. E. (14)	2919 Que St.
FOWLER, A. (16)	2023 G St.
FRANZ, S. I. (13)	St. Elizabeth's Hospital.
FRENCH, O. B. (14)	3420 36th St.
FRIEDENBERG, H. (17)	2023 G St.
FROST, E. (16)	2023 G St.
FULLER, H. G. (134)	1844 Columbia Road.
FUQUA, D. (15)	4009 14th St.
GEORGE, M. (16)	513 E. Capitol St.
GARBER, F. M. (115)	1830 G St.
GLOVER, C. C. JR. (5)	737 15th St.
GORDEN, SPENCER (192)	2007 O St.
GORE, J. H. (13)	2210 R St.
GOSS, M. J. (16)	806 Rittenhouse St.
GRAY, A. C. (135)	Stoneleigh Courts.
GREENE, S. H. (134)	1460 Rhode Island Ave.
GRIGGS, R. F. (14)	Nat'l Geog. Soc.
GROOVER, T. A. (129)	1621 Connecticut Ave.
GROSVENOR, G. (5)	Nat'l Geog. Soc.
HAGNER, F. R. (127)	The Farragut.
HAGAN, F.	2023 G St.
HALL, A.	Naval Observatory.
HALL, C. L. (128)	1408 Chapin St.
HALL, G. L. (192)	The Atlantic.
HALL, R. W. (132)	1235 H St.
HAMILTON, B. (15)	3125 24th St. N. E.

HANKIN, G. (15)	Carroll Ave, Takoma Pk.
HANN, R. M.	2023 G St.
HARRIS, A. L. (14)	1505 Lamont St.
HARRIS, K. (17)	1505 Lamont St.
HARTMANN, H. H. (192)	Interstate Com. Commiss.
HASSELL, J. C.	1335 H. St.
HASTINGS, G. B. (17)	3600 Ordway St.
HAWORTH, E. (16)	2023 G St.
HAYES, H. J.	1335 H St.
HAYNES, W. R. (16)	2133 F St.
HENNING, G. N. (13)	2428 19th St. Apt. 203.
HERRINGTON, M. C.	25 Quincy Place N. E.
HERTLE, L. (5)	Gunston Hall, Lorton, Va.
HEWETT, E. L. (15)	1741 New York Ave.
HILL, C. E. (14) (192)	35 Sycamore St.
HILL, E. A. (14)	2246 Cathedral Ave.
HITCHCOCK, F. A. (14)	2023 G St.
HODGKINS, H. G. (14)	1623 R St.
HODGKINS, H. L. (13)	1830 T St.
HOLLINGSWORTH, R. K. (136)	2015 Nichols Ave.
HOPKINS, A. (5)	1826 Massachusetts Ave.
HOPKINS, N. M. (14)	2128 Bancroft Place.
HOPKINS, T. S. (5)	Hibbs Building.
HORNADAY, F. A. (128)	3509 14th St.
HOLMES, C. W. (8)	2101 G St.
HUMPHREYS, W. J. (13)	1016 Vermont Ave.
HOTTENFELLER, H.	2101 G St.
HUNTER, O. B. (127)	31 E. Oxford St.
HYDE, C. W. (132)	1335 H St.
JACKSON, V. B. (134)	The Brunswick.
JARVIS, E. L. (182)	1339 H St.
JENKINS, G. B. (128)	1639 W St.
JENKINS, W. H. (133)	1738 M St.
JENNISON, C. L.	3475 Holmead Place.
JEWETT, C. H.	1219 K St.
JOHNSTON, F. E. (16)	Alexandria, Va.
JONES, C. K. (15)	304 Maryland Ave.
JONES, E. (16)	3719 Keokuk St.
KALUSOWSKI, H. E. (8)	808 Eye St.
KANE, H. F. (132)	Stoneleigh Courts.
KAYSER, E. L. (14)	3129 O St.
KEARNEY, H. W. (129)	1229 O St.
KEMBLE, A. (133)	The Cecil.
KERN, R. R. (13)	The Iowa.

KERR, H. H. (131)	1742 N St.
KING, W. B. (134)	728 17th St.
KING, W. B. (5)	1335 H St.
KNAPP, M. A. (5)	Southern Building.
KNOTT, C. O. (134)	1720 M St.
KILLIAN, C. H.	2023 G St.
KOCHENDERFER, C. C. (14)	208 Rhode Island Ave.
KOTZ, J. (136)	Medical Science Building.
KRAMER, C. F. (15)	College Park, Md.
KUNDERT, E. (115)	Hood College, Fred'k, Md.
LAMORE, B. H. (15)	Silver Spring, Md.
LANDVOIGT, T. E. (15)	
LAPHAM, J. R. (14)	1829 G St.
LARNER, J. B. (5)	Wash'n Loan & Trust Co.
LATIMER, J. W. (192)	Wilkins Building.
LAVERY, T. C. (192)	1435 K St.
LAWSON, H. W. (127)	1706 Rhode Island Ave.
LEPPER, H. A. (15)	1335 H St.
LEE, T. S. (131)	2109 O St.
LEECH, F. (130)	1359 Columbia Road.
LESTER, M. M. (16)	2023 G St.
LEVITT, A. (192)	1435 K St.
LEWIS, H. S. (133)	1219 Vermont Ave.
LEWIS, N. D. C. (128)	St. Elizabeth's Hospital.
LINVILLE, T. (132)	2517 14th St.
LISNER, A. (5)	Palais Royal.
LITTLEHALES, G. W. (13)	2132 LeRoy Place.
LITTLEPAGE, W. H. (134)	The Alabama.
LOOMIS, H. M. (16)	117 12th St. S. E.
LLOMPART, A. A. (16)	4512 Georgia Ave.
LLOYD, W. B. (17)	2023 G St.
LOYALL, J. (17)	2023 G St.
MCARTHUR, L. E. (14)	2112 F St.
MCDANIEL, A. B.	2023 G St.
MCKIMMIE, O. A. M. (130)	The Valois.
McFALL, J. M. (192)	34th & Chas. St. Balt., Md.
McKELWAY, B. M. (16)	2023 G St.
McLENDON, P. A.	Childrens' Hospital.
McNEIL, H. C. (14)	1210 Decatur St.
MACFARLAND, H. B. F. (5)	1420 New York Ave.
MACMILLAN, J. T. (15)	207 A St. N. E.
MAIN, D. C. (133)	1335 H St.
MALLORY, W. J. (132)	1720 Connecticut Ave.
MANKEY, H.	2314 11th St.

MARALDI, C. F.	1335 H St.
MARBURY, W. B. (134)	1344 19th St.
MARKLEY, M. A. (16)	136 F St. S. E.
MARET, JEANNE (15)	1724 Connecticut Ave.
MARKS, FRANK	2023 G St.
MARSH, E. G. (15)	922 Maryland Ave.
MARTIN, T. C. (128)	The Rochambeau.
MASON, L. M. (135)	817 15th St.
MASON, J. R. (16)	808 9th St. N. E.
MENAUGH, C. J. (16)	2023 G St.
MERRILL, G. P. (13)	1422 Belmont St.
METCALF, J. T. (14)	2005 Eye St.
METZEROTT, J. H. (16)	2023 G St.
MICHELSON, T. (14)	Smithsonian Institution.
MILLER, E. A.	2023 G St.
MILLER, G. B. (130)	1730 K St.
MERRILL, W. H.	Garfield Hospital.
MERRITT, E. A. (132)	1821 Connecticut Ave.
MITCHELL, J. F. (131)	1344 19th St.
MONCRIEF, W. H.	Surgeon General's Office.
MOORE, F. D. (16)	808 Eye St.
MOORE, M. J. (16)	111 Tennessee Ave. N. E.
MOORE, W. C. (131)	The Wyoming.
MOORE, W. L. (13)	The Chastleton.
MOORE, G. F. (5)	P. O. Box "G" Station F.
MORRIS, G. G. (135)	1913 14th St.
MORRISON, R. L.	Seat Pleasant, Md.
MORSE, BRYAN	3319 Wisconsin Ave.
MUNROE, C. E. (13)	1201 16th St.
MYERS, R. E. (15) (129)	2700 Connecticut Ave.
NALL, A.	1435 K St.
NEWMAN, H. W. (16) (17)	1739 P St.
NICHOLS, D. (16)	6402 Connecticut Ave.
NICHOLS, H. B. (16)	6402 Connecticut Ave.
NORSWORTHY, L. D. (14)	1731 Kilbourne St.
NORTHINGTON, E. (129)	1335 H St.
NOYES, T. W. (5)	Care The Evening Star.
O'CONNELL, F. C. (192)	D. C. Supreme Court.
OLSEN, F. (16)	808 Eye St.
O'MALLEY, M. (134)	St. Elizabeth's Hospital.
ONG, HARRY (136)	1768 Columbia Road.
PAGAN, A. E. (132)	The Rochambeau.
PARK, FRANCES E.	1435 K St.
PARKER, E. M. (133)	1726 M St.

PATTISON, G. M. (15)	The Plaza Apt.
PAYNE, JOHN BARTON (5)	1601 Eye St.
PENDEXTER, R. S. (136)	The Champlain Apt.
PERKINS, H. C. (5)	1701 Connecticut Ave.
PETER, ARTHUR (192)	Wash'n Loan & Trust Co.
PHILLIPS, F. M. (15)	3922 13th St.
PHILLIPS, G. W. (15)	808 Eye St.
PLATT, J. H. (14)	633 E. Capitol St.
POLE, S. B. (134)	The Rochambeau.
PORTER, E. C.	2101 G St.
PRICE, H. (136)	1315 Rhode Island Ave.
PROTZMAN, M. I. (15)	1100 Irving St.
PUTZKI, P. S. (135)	911 16th St.
RANDALL, B. D.	2035 F St.
RANDOLPH, B. M. (127)	2010 R St.
RAWSON, G. H.	322 D St. N. E.
REED, E. U. (127)	Naval Medical School.
REEVES, W. P.	The Congressional.
RENSHAW, A. T. (115)	2109 F St.
RESSER, C. E. (14)	National Museum.
REICHELDERFER, L. H. (130)	1721 Connecticut Ave.
REUTER, F. A. (136)	1337 Park Road.
RICHARDSON, C. W. (126)	1317 Connecticut Ave.
RICHARDSON, E. E.	1001 Alabama Ave.
RIGGLES, J. L.	1800 K St.
ROE, J. H. (129)	1335 H St.
ROSE, A. L.	The Elizabeth Somers.
RUEDIGER, W. C. (13)	2836 28th St.
RUFFIN, S. (126)	Connecticut Apt.
SANBORN, N. L. (15)	115 Maryland Ave.
SAULSBURY, W.	Somerset House.
SCHAPIRO, I. (14)	Library of Congress.
SCHMIDT, A. F. W. (13)	35 Bryant St.
SCHMIDT, R. (16)	2023 G St.
SCHMITT, W. L. (15)	2023 G St.
SCHOENFELD, H. (13)	3448 34th St.
SCHOENFELD, H. H. (135)	Wardman Park Hotel.
SCHRIEBER, F. C. (136)	The Montana.
SEIBERT, E. G. (133)	1545 Eye St.
SELAH, M. (16)	17 3rd St. N. E.
SELINGER, M. A. (137)	Copley Courts.
SELLNER, A. E.	1335 H St.
SHANDS, A. R. (130)	901 16th St.
SHUFELDT, R. W. (115)	3356 18th St.

SHUTE, D. K. (126)	1727 De Sales St.
SILL, M. R.	132 Adams St.
SIMPSON, C. A.	1219 Connecticut Ave.
SMALL, W. S. (14)	1330 Irving St.
SMILER, N. M. (137)	1103 P St.
SMITH, C. S. (13)	304 Takoma Ave.
SMITH, B. H. (16)	2023 G St.
SMITH, D. H. (14)	1930 Calvert St.
SMITH, F. S. (192)	410 5th St.
SNOWDEN, EDGAR	1900 S St.
SOLNITSKY, O.	1335 H St.
SPAULDING, H. G. (192)	1435 K St.
SPIELMAN, P.	2023 G St.
STAFFORD, W. P. (192)	D. C. Supreme Court.
STAVELY, A. L. (130)	1744 M St.
STAYTON, W. H. (192)	Munsey Building.
STERRETT, J. M. (13)	Springfield, Pierce Mill Rd
STITT, E. R.	1708 R St.
STOCKTON, C. H. (14)	2017 O St.
STOUT, J. D. (130)	901 16th St.
SULLIVAN, R. Y.	The Rochambeau.
SUTTON, L. H. (192)	McLachlen Building.
SWETT, O. D. (14)	15 Grafton St. C. C., Md.
SWISHER, C. C. (13)	1810 Kalorama Road.
SYMONDS, H. U.	2536 37th St.
SYMMONDS, K. G. (16)	The Marne.
TAYLOR, E. A. (136)	1029 Vermont Ave.
TAYLOR, J. N. (15)	1335 H St.
TEMIN, H. (16)	515 4½ St. S. W.
TEWKSBURY, W. D. (134)	4107 14th St.
THOMPSON, B. B. (182)	1339 H St.
THOMPSON, J. L. (131)	1735 20th St.
THURSTON, E. L. (5)	1414 Madison St.
TIBBETTS, A. P. (133)	1223 Vermont Ave.
TIBBITTS, G. C. (16)	321 Essex Ave.
TITUS, E. W. (132)	The Rochambeau.
TONKIN, W. H. (16)	2121 15th St.
TOWNSEND, J. W. (192)	1435 K St.
TRIMBLE, R. S. (133)	722 18th St.
TUCKERMAN, W. R. (5)	Bethesda, Md.
VAN ORSTRAND, C. E. (15)	1607 31st St.
VALAER, PETER (15)	1372 Kenyon St.
VAN VLECK, W. C. (192)	1435 K St.
VASQUEZ, A. C. (15)	2023 G St.

VICKERS, R. (16)	3339 N St. N. W.
WARDMAN, H. (5)	1430 K St.
WARREN, L. E. (16)	1341 Columbia Road.
WASHBURN, W. S. (5)	2029 Connecticut Ave.
WATKINS, M. H.	1429 Clifton St.
WEIGANDT, H. N. (17)	507 3rd St.
WEINSTEIN, M. (15)	3338 M St.
WHITE, C. S. (129)	911 16th St.
WHITE, H. (5)	2139 R St.
WHITE, W. A. (127)	St. Elizabeth's Hospital.
WHITMORE, E. R. (14) (129)	1108 16th St.
WILBUR, W. A. (13)	1205 Columbia Road.
WIARD, W. R. (16)	2023 G St.
WILSON, J. H. (15)	Central High School.
WILSON, L. P. (192)	1435 K St.
WOODHULL, M. V. Z. (5)	2033 G St.
WILEY, V. (16)	1718 17th St.
WRIGHT, G. V. (16)	Montgomery Apt.
YARROW, H. C. (126)	814 17th St.
ZIEGLER, L. H. (136)	1335 H St.

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FORM OF BEQUEST

One hundred thousand dollars will establish a chair, five thousand dollars a scholarship, and one thousand dollars a prize, in any department of the University.

"I give and bequeath to the George Washington University, of Washington, D. C., the sum of _____ dollars, free from legacy duty or tax, the same to be used as its Board of Trustees may determine (or, in case of a special gift, stating the terms of the gift)."

A PRAYER*
BY
GEORGE WASHINGTON

Almighty God: We make our earnest prayer that Thou wilt keep the United States in Thy holy protection, that Thou wilt incline the hearts of the citizens to cultivate a spirit of subordination and obedience to government; and entertain a brotherly affection and love for one another and for their fellow-citizens of the United States at large. And finally that Thou wilt most graciously be pleased to dispose us all to do justice, to love mercy and to demean ourselves with that charity, humility and pacific temper of mind which were the characteristics of the Divine Author of our blessed religion and without a humble imitation of whose example in these things we can never hope to be a happy nation. Grant our supplication, we beseech Thee, through Jesus Christ, our Lord. Amen.

* This prayer is used regularly at "The President's Chapel" of the George Washington University, and voices the aspirations of the University for the fulfilment of civic duties and the promotion of national welfare.

VOLUME XX

NUMBER 3

George Washington University Bulletin

REPORT OF THE TREASURER

1920-1921



PUBLISHED BY THE UNIVERSITY
WASHINGTON, D. C.

George Washington University Bulletin

REPORT OF THE TREASURER
for the year ended August 31, 1921

Volume XX, Number 3
October, 1921

PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C.
MARCH, JUNE, OCTOBER AND DECEMBER

Entered October 6, 1904, at Washington, D. C., as second class matter
under Act of Congress of July 16, 1894.

Report of the Treasurer.

October 25, 1921.

THE BOARD OF TRUSTEES OF GEORGE WASHINGTON UNIVERSITY:

GENTLEMEN: I have the honor to submit herewith a report showing in detail the financial operations of the University for the fiscal year ended August 31, 1921; and exhibiting the state of the Trust Funds, as required by the By-Laws of the University, certified by The American Audit Company of New York.

The total net resources of the University are \$1,303,722.57, a gain for the year of \$368,569.83, as shown in the following comparative summary of Assets and Liabilities for 1919-20 and 1920-21:

COMPARATIVE SUMMARY OF ASSETS AND LIABILITIES, 1919-20 AND 1920-21.

	Assets.				
	1919-20	1920-21	Increase.	Decrease.	Net increase.
Cash, General Funds..	\$23,436.32	\$32,916.58	\$9,480.26		\$9,480.26
Cash, Endowment Income.....	7,430.58	10,671.79	3,241.21		3,241.21
Trust Funds.....	498,306.97	541,257.80	42,950.83		42,950.83
Plant used for Education.....	733,852.16	1,023,994.95	290,142.79		290,142.79
Library Books.....	48,493.87	50,019.12	1,525.25		1,525.25
Accounts receivable..	30,502.24	40,423.91	9,921.67		9,921.67
Perpetual insurance deposits.....	1,406.25	1,406.25			
Equipment.....	102,557.33	108,989.51	6,432.18		6,432.18
	<u>\$1,445,985.72</u>	<u>\$1,809,679.91</u>	<u>\$363,694.19</u>		<u>\$363,694.19</u>

	Liabilities.				
	1919-20	1920-21	Increase.	Decrease.	Net decrease.
Notes, secured by Deeds of Trust.....	\$149,563.50	\$148,934.50		\$629.00	
Liability to Endowment Funds.....	352,928.81	350,881.55		2,047.26	
Accrued expenses, not due.....	5,625.51	5,316.73		308.78	
Accounts payable.....	549.99	824.56	\$274.57		
Reserve, War Department Fund.....	1,465.17			1,465.17	
Reserve, Student Activity Fund.....	700.00			700.00	
	<u>\$510,832.98</u>	<u>\$505,957.34</u>	<u>\$274.57</u>	<u>\$5,150.21</u>	<u>\$4,875.64</u>
Total net resources.....	<u>\$935,152.74</u>	<u>\$1,303,722.57</u>			
Increase of net resources.....	<u>\$368,569.83</u>				

Trust Funds were increased during the year \$45,065.24 as follows: Corcoran Endowment Fund, \$450.00; Congressional Professorship of English Fund, \$13,973.55; Founders of Columbian Women Fund, \$410.00; Ellen M. E. Woodhull Fund, \$600.00; David Spencer Fund, \$18,135.00;

REPORT OF THE TREASURER

Powell Fund, \$11,077.00; Endowment Restoration and Accretion Fund, \$107.69; Alumni Endowment Fund, \$312.00. Executory Trust Funds were increased by income additions \$1,057.59, and decreased by execution of trusts \$3,172.00; a net decrease of \$2,114.41.

Two New Trust Funds were opened during the year and the following amounts received: Ellen M. E. Woodhull Scholarship Fund \$600.00, and the David Spencer Scholarship Fund \$18,135.00.

Real Estate used for educational purposes or acquired for building sites is valued at \$1,023,994.95, an increase of \$290,142.79. The increase is accounted for by new valuations of the Washington Real Estate Board authorized by the Board of Trustees of the University.

The Mortgage Debt stands at \$148,934.50, a decrease of \$629.00.

Laboratory Equipment and Furniture are valued, after writing off the usual depreciation, at \$108,989.51, an increase by purchase of \$6,432.18.

Books in the Libraries are valued, after writing off the usual depreciation, at \$50,019.12, an increase by purchase of \$1,525.25.

Contributions, other than those reported under Trust Funds, were received as follows:

Anonymous gift for salaries \$1,000.00.
 Gift from Mrs. Carolyn S. Fahnstock to the Hospital \$500.00.
 Gift from the Board of Lady Managers of the Hospital \$500.00.
 Gifts from various persons for special lectures \$495.10, and for prizes \$105.00.

Property Under Lease for educational purposes:

2022 G Street, one year ending September 30, 1922, at \$1,500.00 a year.
 2024 G Street, one year ending October 1, 1922, at \$1,290.00 a year.
 Basement of Concordia Church, eight months, in 1921-22, at \$75.00 a month.

Cash Receipts and Disbursements:

Balance brought over from 1919-20.....	\$21,911.32	
Receipts for the year 1920-21.....	470,888.47	\$492,799.79
Disbursements for the year 1920-21.....		<u>461,658.21</u>
Balance on hand August 31, 1921.....		\$31,141.58

A statement in detail of Receipts and Disbursements will be found in Exhibit "L" of this report.

Respectfully submitted,

CHARLES W. HOLMES,
 Treasurer.

Report of the American Audit Company.

October 15, 1921.

We have examined the accounts and records of the GEORGE WASHINGTON UNIVERSITY for the year ended August 31, 1921.

Our report, including Exhibits, is as follows:

- EXHIBIT**
- "A"—Balance Sheet.
 - "B"—General Surplus.
 - "C"—Revenue Account.
 - "D"—Department of Arts and Sciences.
 - "E"—Department of Arts and Sciences—Summer School.
 - "F"—Law School.
 - "G"—Law Summer School.
 - "H"—Medical School.
 - "I"—Medical Summer School.
 - "J"—College of Pharmacy.
 - "K"—University Hospital.
 - "L"—Statement of Cash Receipts and Payments.
 - "M"—Trust Funds.
 - "N"—Endowment Funds Investments.
 - "O"—Executory Trust Funds and Investments.
 - "P"—Endowment and Executory Trust Funds, Income and Expense.

CASH: \$32,916.58.

We counted the cash on hand September 21, 1921, and reconciled the Cash Account with the Bank Account as at August 31, 1921.

ACCOUNTS RECEIVABLE: \$39,358.08.

This amount consists of Fees, etc., due for the term of 1920-1921, from students in the various departments, and other Accounts Receivable as follows:

School of Graduate Studies.....	\$548.82	
Columbian College.....	8,213.61	
College of Engineering.....	5,387.16	
Teachers College.....	1,037.21	
Summer School.....	6,565.45	
Total Department of Arts and Sciences.....		\$21,752.25
Law School.....	7,017.75	
Law Summer School.....	6,224.67	
		13,242.42
Medical School.....	360.46	
Medical Summer School.....	188.73	
		549.19
College of Pharmacy.....		65.92
Accounts due University Hospital from patients for the year 1920-1921.....		2,387.85
Income from Endowments, available but not transferred to University Account as at August 31, 1921.....		1,360.45
		<u>\$39,358.08</u>

The balances standing in accounts due at September 1, 1920, remaining unpaid as at August 31, 1921, are considered worthless and were charged to Surplus.

DEPRECIATION:

Depreciation on the Library Books, and Equipment was charged off to the amount of \$1,431.18.

NET INCOME:

The Net Income for the year from all departments including the University Hospital was \$49,506.31, as shown by Exhibit "C." This is a decrease in Net Income of \$27,820.32 as compared with the results of a year ago.

SURPLUS: \$751,792.98.

The changes in this account since August 31, 1920, are shown by Exhibit "B."

TRUST FUNDS:

On October 13, 1921, we inspected the securities representing the investments of the Endowment and Executory Trust Funds, in stocks, bonds, and notes, as per Exhibits "N" and "O."

We verified the cash balances as at August 31, 1921, representing uninvested principal \$2,879.49, and unexpended income \$10,671.79, of the Endowment and Executory Trust Funds with the bank accounts.

Respectfully submitted,

THE AMERICAN AUDIT COMPANY,

By C. R. CRANMER,
Resident Manager.

Approved:

F. W. LAFRENTZ, *President.*

Attest:

W. H. PICKETT, *Ass't Secretary.*

GENERAL ACCOUNTS

EXHIBIT "A."
BALANCE SHEET
As at August 31, 1921.

Assets.		Liabilities.	
Cash:		Trust Notes:	
In Bank.....	\$31,141.58	Notes Secured by Deeds of Trust on:	
Petty Cash Funds.....	1,775.00	1435 K Street N. W.....	\$120,000.00
		720 20th Street, N. W.....	3,840.00
Accounts Receivable:		722-28 20th Street N. W.....	10,500.00
Students Ledger, 1920-1921.....	35,609.78	808 Eye Street N. W.....	8,000.00
Hospital Accounts, 1920-1921.....	2,387.85	1016 13th Street N. W.....	4,500.00
Endowment Income Receivable.	1,360.45	1300 L Street N. W.....	2,094.50
			\$148,934.50
Insurance:		Accounts Payable (Current).....	824.56
Withdrawal Value of Perpetual		Accrued Salaries, Summer School.....	4,108.81
Insurance Policies.....	1,406.25	Interest Payable.....	1,207.92
Prepaid Salaries.....	1,065.83	Liability to Endowment Funds:	
Libraries—Books:		Principal:	
Arts and Sciences.....	30,003.24	Secured by Deed of Trust,	
Law School.....	19,519.69	dated Dec. 1, 1910 on Med-	
Medical School.....	5,226.93	ical and Hospital Lands and	
		Buildings, 1335-1339 and	
		1341 H Street N. W.....	321,430.23
Less Depreciation.....	54,749.86		
	4,730.74	Liability of the University General	
Equipment:		Property:	
Arts and Sciences.....	53,795.22	To Denman Fund—Principal...	7,179.32
Law School.....	5,392.78	To Specific Endow-	
Medical School.....	30,259.95	ment Funds In-	
University Hospital.....	31,575.08	come, which was	
		applied to current	
		expenses prior to	
		August 31, 1910..	\$24,319.26
Less Depreciation.....	121,023.03	Less, Payments in	
	12,033.52	Current year....	2,047.26
			22,272.00
Real Estate: Per appraisal dated		Surplus: Exhibit "B".....	
June 18, 1921:			29,451.32
Medical and Hospital Lands and			751,792.98
Buildings, 1335, 1339 and 1341			
H Street N. W.....	616,415.00		
2017 G Street N. W.....	25,096.25		
2023 G Street N. W., including			
3 lots adjoining Engineering			
laboratory Building	67,487.50		
2015-21 G Street N. W.	22,000.00		

GENERAL ACCOUNTS

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2101 G Street N. W., including lot adjoining.....	25,000.00
1016 13th Street and 1300 L Street N. W.....	22,500.00
Lots D, E and F, Square 102.....	6,053.40
Lot 10, Square 102.....	4,942.80
Lot 35, Square 102.....	2,500.00
Lot 36, Square 102.....	2,500.00
Lot G, Square 102.....	10,000.00
1435 K Street N. W.....	185,000.00
808 Eye Street N. W.....	20,000.00
726 20th Street N. W.....	8,000.00
728 20th Street N. W.....	6,500.00

1,023,994.95

\$1,257,750.32

Trust Funds and Investments.

Trust Fund Investments:	
Endowment Funds, Exhibit "N"	\$503,693.05
Executory Trust Funds, Exhibit "O".....	34,685.26

\$538,378.31

Cash on Hand for Investment, Aug. 31, 1921:	
Endowment Funds, Exhibit "N"	1,541.18
Executory Trust Funds, Exhibit "O".....	1,338.31

2,879.49

Cash on Hand, Unexpended Income August 31, 1921, Exhibit "P".....	
---	--

Trust Funds, Exhibit "M":	
Endowment Funds.....	\$505,234.23
Executory Trust Funds.....	36,023.57
Surplus.....	

\$541,257.80
10,671.79

\$551,929.59

NOTE:	
Surplus General Property.....	\$751,792.98
Trust Funds.....	541,257.80
Unexpended Trust Funds Income.....	10,671.79
Total Net Resources.....	<u>\$1,303,722.57</u>

REPORT OF THE TREASURER

EXHIBIT "B."

SURPLUS

As at August 31, 1921.

Balance September 1, 1920.....\$421,012.96

Add:

Old Accounts Collected.....	\$596.11	
Old Student Activities Fund transferred....	497.00	
Summer Schools 1920 expenses over estimated.....	431.72	
Appreciation of Real Estate, per Appraisal dated June 18, 1921 (Net).....	287,969.89	
September 1920 salary included in year ended August 31, 1920.....	333.33	
Law School Surplus balance at September 1, 1920 transferred.....	8,402.23	
Net Income for University for the year ended August 31, 1921, transferred from Revenue Account, Exhibit "C".....	49,506.31	
		<u>347,736.59</u>
		\$768,749.55

Less:

Uncollectible Accounts prior years.....	13,589.51	
Adjustment Fees.....	3,317.81	
Old Checks Paid.....	49.25	
		<u>16,956.57</u>

Balance, August 31, 1921.....\$751,792.98

REVENUE ACCOUNT

Expenses.

Administration Expenses:	
Salaries.....	\$30,907 88
Stationery and Printing.....	9,426 78
Telephone.....	822 31
Advertising.....	1,197 31
Postage.....	1,505 47
Auditing.....	625 00
Commencement Expenses.....	6,134 16
Traveling Expenses.....	561 62
Legal.....	844 25
Insurance.....	684 06
Administration Hall:	
Wages.....	\$1,405 00
Heat and Light.....	454 95
Repairs.....	656 50
Supplies and Expense.....	74 49
<hr/>	
Transferred to Medical School.....	2,590 04
Miscellaneous.....	25,000 00
	1,627 10

Appraisal Fees—Real Estate.....	5,200.00
Interest.....	500.00
	9,272.88
Taxes.....	512.69
	275.00
Deficit Medical School (Exhibit "H").....	537.68
Deficit College of Pharmacy (Exhibit "J").....	1,108.90
Deficit University Hospital (Exhibit "K").....	35.44
Net Income for year ended August 31, 1921, transferred to Surplus Account, Exhibit "B".....	49,506.31
	\$143,675.78

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REVENUE ACCOUNT

Income.

Department of Arts and Sciences.....	\$26,117.36
Exhibit "D".....	
Law School.....	16,215.86
Exhibit "F".....	
Assessment for General Expenses.....	\$65,527.25
Department of Arts and Sciences.....	4,076.24
Summer School.....	23,633.00
Law School.....	
Income from Investments:	
Endowments for General Purposes.....	1,360.45
Income from Other Sources:	
Graduation Fees.....	3,532.00
Bonding Fees.....	12.00
Interest.....	1,304.78
Rent—Net.....	1,466.66
Miscellaneous.....	430.18
	6,745.62

\$143,675.78

EXHIBIT "D."

DEPARTMENT OF ARTS AND SCIENCES

For the year ended August 31, 1921.

Income.

Tuition:		
School of Graduate Studies.....	\$14,815.87	
Columbia College.....	129,577.29	
College of Engineering.....	45,610.76	
Teachers College.....	19,360.00	
		<u>\$209,363.92</u>
Matriculation:		
School of Graduate Studies.....	400.00	
Columbia College.....	3,870.00	
College of Engineering.....	1,068.00	
Teachers College.....	615.00	
		<u>5,953.00</u>
Laboratory:		
School of Graduate Studies.....	437.19	
Columbia College.....	4,013.09	
College of Engineering.....	3,417.64	
Teachers College.....	160.08	
		<u>8,028.00</u>
Library:		
School of Graduate Studies.....	41.00	
Columbia College.....	1.00	
College of Engineering.....	3.00	
Teachers College.....	2.00	
		<u>47.00</u>
Miscellaneous:		
War Dept. Chemical Research.....	2,475.30	
Contribution for McCutchins Prize.....	40.00	
Contribution for Phi Mu Prize.....	15.00	
Contribution, Anonymous.....	1,000.00	
		<u>3,530.30</u>
		<u>\$226,922.22</u>

Expenses.

Salaries.....	\$104,047.02
Laboratories.....	5,695.21
Stationery and Printing.....	2,565.77
Library.....	492.42
McCutchins Prizes.....	40.00
Phi Mu Prize.....	15.00
Postage.....	257.80
Telephone.....	66.67
Depreciation on Equipment.....	527.15
Depreciation on Library Books.....	300.03
Miscellaneous.....	545.31

GENERAL ACCOUNTS

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University Hall:		
Wages.....	\$5,965.07	
Rent.....	3,075.00	
Heat and Light.....	5,566.49	
Repairs.....	5,768.04	
Hauling.....	436.00	
Insurance.....	87.07	
Supplies and Expense.....	1,294.26	
	<u>\$22,191.93</u>	
Less, Rent of Fraternity Rooms.....	760.50	
		<u>\$21,431.43</u>
		135,983.81
Transferred to Medical School.....	1,080.00	
Transferred to General Fund.....	65,527.25	
		<u>\$202,591.06</u>
		24,331.16
Net Income Department of Arts and Sciences Summer School, transferred from Exhibit "E".....		<u>1,786.20</u>
Net Income transferred to Revenue Account, Exhibit "C"...		<u>26,117.36</u>
NOTE:		
Library Books were purchased during the year to the amount of \$867.57.		
NOTE:		
Tuition was provided by the Department of Arts and Sciences for which it received no monetary consideration as follows:		
Scholarships.....	\$5,704.00	
University Aid.....	2,142.00	
Ministerial Aid.....	921.50	
		<u>\$8,767.50</u>

EXHIBIT "E."

DEPARTMENT OF ARTS AND SCIENCES SUMMER SCHOOL

For the year ended August 31, 1921.

	<i>Income.</i>	
Tuition.....	\$28,048.00	
Laboratories.....	1,135.12	
		<u>\$29,183.12</u>
	<i>Expenses.</i>	
Salaries.....	\$23,125.36	
Miscellaneous.....	195.32	
Transferred to General Fund.....	4,076.24	
		<u>\$27,396.92</u>
Net Income, transferred to Department of Arts and Sciences (Exhibit "D").....		<u>\$1,786.20</u>

EXHIBIT "F."

LAW SCHOOL

For the year ended August 31, 1921.

Income.

Tuition.....	\$84,863.00	
Matriculation.....	2,181.00	
Library.....	216.50	
Contribution for Herrick Prize.....	25.00	
Contribution for Ellsworth Prize.....	25.00	
		<u>\$87,310.50</u>

Expenses.

Salaries.....	\$38,789.64	
Library.....	290.90	
Stationery and Printing.....	2,552.51	
Telephone.....	319.84	
Postage.....	157.20	
Advertising.....	694.20	
Phi Delta Phi Prize.....	25.00	
Herrick Prize.....	25.00	
Ellsworth Prize.....	25.00	
Depreciation on Equipment.....	53.93	
Depreciation on Library Books.....	195.20	
Miscellaneous.....	1,716.88	
Expenses under Special Appropriation.....	1,835.78	
	46,681.08	
Transferred to General Fund.....	23,633.00	
		<u>70,314.08</u>
Law Hall:		
Wages.....	\$2,548.00	
Heat and Light.....	1,858.88	
Insurance.....	923.16	
Repairs to Equipment.....	1,372.40	
Supplies and Expense.....	1,115.60	
		<u>7,818.04</u>
		<u>78,132.12</u>
		<u>\$9,178.38</u>
Net Income Law Summer School Transferred from Exhibit "G".....		<u>7,037.48</u>
Net Income, transferred to Revenue Account Exhibit "C"....	\$16,215.86	
		<u><u>\$16,215.86</u></u>

NOTE:

Library Books were purchased during the year to the amount of \$886.01.

GENERAL ACCOUNTS

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EXHIBIT "G."

LAW SUMMER SCHOOL

For the year ended August 31, 1921.

Income.

Tuition	\$12,488.50	
Matriculation	755.00	
	<hr/>	\$13,243.50

Expenses.

Salaries	\$6,095.00	
Advertising	56.77	
Stationery and Printing	54.25	
	<hr/>	\$6,206.02

Net Income, transferred to Law School (Exhibit "F")	<hr/>	<hr/>
		\$7,037.48

REPORT OF THE TREASURER

EXHIBIT "H."
 MEDICAL SCHOOL
 For the year ended August 31, 1921.

Income.

Tuition.....	\$23,597.25	
Matriculation.....	365.00	
Laboratory.....	1,221.14	
Special Examinations.....	371.00	
Miscellaneous.....	80.00	
		<u>\$25,634.39</u>
Transferred from Administration.....	25,000.00	
Transferred from Arts and Sciences.....	1,080.00	
		<u>26,080.00</u>
		<u>\$51,714.39</u>

Expenses.

Salaries.....	\$34,602.14	
Laboratory.....	4,706.46	
Library.....	78.55	
Stationery and Printing.....	1,027.36	
Advertising.....	166.30	
Telephone.....	332.84	
Postage.....	103.98	
Traveling Expense.....	348.47	
Museum.....	533.76	
Depreciation on Equipment.....	302.60	
Depreciation on Library Books.....	52.27	
Miscellaneous.....	292.61	
		<u>\$42,547.34</u>
Medical Hall:		
Wages.....	\$2,522.02	
Heat and Light.....	3,224.24	
Hauling.....	128.00	
Repairs.....	2,857.49	
Supplies and Expense.....	1,141.02	
		<u>9,872.77</u>
		<u>\$52,420.11</u>
		<u>\$705.72</u>
Net Income Medical Summer School, transferred from Exhibit "I".....		<u>168.04</u>
Net Deficit transferred to Revenue Account, Exhibit "C".....		<u>\$537.68</u>

NOTE:

Library Books were purchased during the year to the amount of \$389.17.

EXHIBIT "I."
 MEDICAL SUMMER SCHOOL
 For the year ended August 31, 1921.

Income.

Tuition.....	\$1,972.00	
Matriculation.....	68.00	
Laboratories.....	42.04	
		<u>\$2,082.04</u>
		<u>\$1,914.00</u>
		<u>\$168.04</u>
Salaries.....		
Net Income transferred to Medical School (Exhibit "H").....		

GENERAL ACCOUNTS

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EXHIBIT "J."

COLLEGE OF PHARMACY

For the year ended August 31, 1921.

Income.

Tuition.....	\$1,304.00	
Matriculation.....	54.00	
Laboratory.....	280.87	
	<u>\$1,638.87</u>	
Transferred from War Dept. Chemical Research.....	775.35	\$2,414.22

Expenses.

Salaries.....	\$1,595.87	
Telephone.....	64.67	
Heat and Light.....	398.79	
Supplies.....	164.15	
Repairs.....	608.03	
Miscellaneous.....	691.61	
	<u>\$3,523.12</u>	
Deficit transferred to Revenue Account (Exhibit "C").....	\$1,108.90	

EXHIBIT "K."

UNIVERSITY HOSPITAL

For the year ended August 31, 1921.

Income.

Pay Patients:		
Collected.....	\$89,253.47	
Uncollected.....	2,387.85	
Donation Board of Lady Managers.....	500.00	
Donation Mrs. Carolyn S. Fahnestock.....	500.00	
	<u>\$92,641.32</u>	

Expenses.

Salaries.....	\$34,552.39	
Table Supplies.....	26,231.65	
Medical and Surgical Supplies.....	5,774.22	
Electricity and Gas.....	3,600.19	
Fuel.....	4,111.72	
Laundry.....	3,361.96	
Repairs.....	4,793.33	
Miscellaneous Supplies.....	2,228.90	
Ice.....	2,526.26	
Telephone.....	810.62	
Stationery and Printing.....	1,137.96	
Insurance.....	822.03	
Interest.....	378.50	
Hauling.....	207.00	
Expenses in O'Kane Case.....	1,159.85	
Miscellaneous.....	980.18	
	<u>\$92,676.76</u>	

Net Deficit transferred to Revenue Account (Exhibit "C")... \$35.44

EXHIBIT "L."
STATEMENT OF CASH RECEIPTS AND PAYMENTS
For the year ended August 31, 1921.

Receipts.	Arts and Sciences.	Law.	Medicine.	Hospital.	Pharmacy.	Adminis- tration.	Total.
Students:							
Regular session.....	\$209,816 91	\$81,012 50	\$25,565 96		\$1,580 17		\$317,975 54
Summer session.....	23,337 80	7,701 50	1,914 00				32,953 30
1919-20 fees.....	8,046 30	3,952 00	784 54		130 13		12,912 97
Special lectures.....	495 10						495 10
Contributions.....	1,000 00			\$500 00			1,500 00
Prizes.....	40 00	65 00					105 00
Rent Fraternity Rooms.....	760 50		247 25				760 50
Sale of equipment.....							247 25
Hospital.....				90,663 61			90,663 61
Graduation fees.....						\$3,175 50	3,175 50
Rents, 20th St. property.....						1,809 08	1,809 08
General endowment income.....						1,729 95	1,729 95
Interest on bank balances.....						1,300 03	1,300 03
War Department Research.....						5,004 67	5,004 67
Miscellaneous.....	255 97						255 97
Total Cash receipts.....	\$243,752 58	\$92,731 00	\$28,511 75	\$91,163 61	\$1,710 30	\$13,019 23	\$470,888 47
Administration transfer—A. & S. and Law.....						89,160 25	89,160 25
University grant.....			25,000 00				25,000 00
A & S. expense transfer.....			1,080 00				1,080 00
War Research expense transfer.....					775 35		775 35
Total Receipts.....	\$243,752 58	\$92,731 00	\$54,591 75	\$91,163 61	\$2,485 65	\$102,179 48	\$586,904 07
Cash balances Sept. 1, 1920.....	\$243,752 58	\$92,731 00	\$54,591 75	\$91,163 61	1,960 77	19,950 55	21,911 32
					\$4,446 42	\$122,130 03	\$608,815 39

GENERAL ACCOUNTS

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Payments.	Arts and Sciences.	Law.	Medicine.	Hospital.	Pharmacy.	Adminis- tration.	Total.
Regular Departmental.....	\$133,602.75	\$52,864.93	\$44,139.32	.....	\$2,666.67	.....	\$233,273.67
Maintenance of Buildings and Grounds.....	22,264.13	6,757.28	9,830.27	.....	856.45	\$3,033.15	42,741.28
Refunds to students.....	2,132.03	713.00	238.89	.....	32.68	.....	3,117.20
Hospital.....	.....	.....	.....	\$92,756.70	.....	.....	92,756.70
Equipment.....	3,956.02	1,434.00	630.85	764.75	.....	.....	6,785.62
Library Books.....	867.57	878.01	405.42	.....	.....	.....	2,151.00
1920 Summer Salaries.....	2,189.64	320.41	.....	.....	.....	.....	2,510.05
Refunds old student accounts.....	286.60	187.50	626.45	.....	.....	.....	1,100.55
General Expenses.....	.....	.....	.....	.....	.....	39,626.28	39,626.28
Stationery and Printing.....	.....	.....	.....	.....	.....	9,126.74	9,126.74
Advertising.....	.....	.....	.....	.....	.....	1,197.31	1,197.31
Postage.....	.....	.....	.....	.....	.....	1,488.60	1,488.60
Interest.....	.....	.....	.....	.....	.....	8,888.70	8,888.70
Commencements.....	.....	.....	.....	.....	.....	6,204.95	6,204.95
Real Estate notes paid.....	.....	.....	.....	.....	.....	629.00	629.00
Real Estate taxes.....	.....	.....	.....	.....	.....	342.42	342.42
War Department Research.....	.....	.....	.....	.....	.....	3,214.52	3,214.52
Petty Cash.....	.....	.....	.....	.....	.....	250.00	250.00
1920 Accounts.....	.....	.....	.....	.....	.....	771.63	771.63
Real Estate Repairs and Improve- ments.....	.....	.....	.....	.....	.....	2,172.90	2,172.90
Salaries prepaid.....	.....	.....	.....	.....	.....	1,065.83	1,065.83
Student Activities balance.....	.....	.....	.....	.....	.....	196.00	196.00
Endowment Income restoration.....	.....	.....	.....	.....	.....	2,047.26	2,047.26
Total Cash payments.....	\$165,299.34	63,155.13	55,871.20	93,521.45	3,555.80	80,255.29	461,658.21
Transfer, University to Medical.....	.....	.....	.....	.....	.....	25,000.00	25,000.00
Transfer, War Research to Phar- macy.....	.....	.....	.....	.....	.....	775.35	775.35
Transfer, A. & S. to Medical.....	1,080.00	.....	.....	.....	.....	.....	1,080.00
Administration Assessments.....	65,527.25	23,633.00	.....	.....	.....	.....	89,160.25
Total Payments.....	231,906.59	86,788.13	55,871.20	93,521.45	3,555.80	106,030.64	577,673.81
Cash balance, Sept. 1, 1921.....	11,845.99	5,942.87	.....	.....	890.62	16,099.39	31,141.58
Cash Overdrafts, Sept. 1, 1921.....	.....	.....	1,279.45	2,357.84	.....	.....	.....
Total.....	\$243,752.58	\$92,731.00	\$54,591.75	\$91,163.61	\$4,446.42	\$122,130.03	\$608,815.39

TRUST ACCOUNTS

EXHIBIT "M."

TRUST FUNDS

As at August 31, 1921.

GENERAL ENDOWMENT FUNDS.

Permanent funds, principal to be invested and income only to be used, for support of the general work of the University.

Subscription Gifts Endowment Fund, 1845-1851:

Fund raised by authority of the Trustees of Columbian College by general subscription between the years 1845 and 1851, as a permanent endowment for the support of the College. (Formerly called the Poindexter Endowment Fund.) \$12,525.56

Withers Endowment Fund:

Fund raised by authority of the Trustees of Columbian College between the years 1851 and 1870, for increasing the endowment fund of the College; John Withers of Alexandria, Virginia, giving \$16,100, and the balance being obtained by general subscription. (Formerly called the Forty Thousand Dollar Endowment Fund.).. 26,891.46

Corcoran Endowment Fund:

Fund raised by authority of the Trustees of Columbian College and Columbian University between the years 1871 and 1886, to be forever held inalienable, and not to be diminished by use for the support of the institution, but the whole amount to be invested, in the discretion of the Trustees and according to their best judgment, and the interest thereon, or the income therefrom to be used for the current expenses and support of the institution; William W. Corcoran, of Washington, D. C., giving \$112,000, and the balance being obtained by general subscription (\$189,048.75 of this fund invested in Deed of Trust on Medical and Hospital Lands and Buildings)..... 218,314.92

Syms Endowment Fund:

Bequest of Samuel Robert Syms, of West Hoboken, New Jersey, in 1891, to Columbian University, to be applied by the Trustees toward the endowment of the College proper..... 1,500.00

\$259,231.94

PROFESSORSHIP ENDOWMENT FUNDS.

Permanent funds, principal to be invested and income only to be used, for support of professorships as specified by the donors.

Congressional Professorship Endowment Fund:

Donation by the United States, in 1832, by Act of Congress, of \$25,000 in city lots in Washington, D. C., to be sold and the proceeds invested as a capital, the dividends or interest to be used and applied, in aid of other revenues of Columbian College, to the establishment and endowment of such professorships therein "as now are, or hereafter shall be, established by the Trustees;" (appropriated to the extent of \$6,295.77 by vote of the Board of Trustees to the support of the Professorship of English) \$105,685.48

Elton Professorship Fund:

Bequest of Rev. Romeo Elton of Exeter, England, in 1872, to be applied for the foundation of a professorship of mental and moral philosophy in Columbian College, to be called the Elton Professorship of Mental and Moral Philosophy..... \$14,508.19

Alumni Professorship Fund:

Gifts of various alumni since 1911, for the endowment of an Alumni Professorship of Mathematics, the amount to be invested and the interest only to be used for the professorship..... \$29.49

\$121,023.16

SPECIFIC ENDOWMENT FUNDS.

Permanent funds, principal to be invested and income only to be used, for designated purposes specified by the donors (other than support of professorships) incidental to, or connected with, the general work of the University.

*Scholarship Funds:**Walker Scholarship Fund:*

Gift of William Walker, of Putnam County, Georgia, in 1824, for the endowment of a scholarship..... \$2,500.00

Withington Scholarship Fund:

Gift of the Board of Trustees of the New York Baptist Theological Seminary, on behalf of John Withington of New York, in 1829, for the purpose of endowing a scholarship in Columbian College, to be named the Withington Scholarship..... 1,953.13

Morehouse Scholarship Fund:

Gift of A. Morehouse, of Washington, D. C., in 1861, to Columbian College, with the design of adding to its ability to furnish gratuitous instruction to indigent students for the Christian ministry..... 1,500.00

Kendall Scholarship Fund:

Gift of Amos Kendall, of Washington, D. C., in 1869, to Columbian College on behalf of Calvary Baptist Church in the City of Washington, to purchase a classical scholarship; the Trustees of Public Schools in the City of Washington, and their successors, to have the perpetual privilege of selecting from said schools one pupil annually to fill said scholarship, and the pupils so selected each to be entitled to instruction in said College, for the term of six years, free of charge for tuition, use of library, and apparatus, or for any other privilege allowed to paying students of the same grade..... 5,959.61

Davis Scholarship Fund:

Gift of Isaac Davis, of Worcester, Massachusetts, in 1869, the income to be appropriated to some student pursuing his collegiate course in Columbian College under certain conditions..... 1,000.00

M. M. Carter Scholarship Fund:

Gift of Mrs. Maria M. Carter, of Washington, D. C., in 1871, to Columbian College, to found a scholarship for some deserving young man..... 1,000.00

Founders of Columbian Women Scholarship Fund:

A fund established by the "Columbian Women" of George Washington University, in 1920, to provide scholarships for women in Columbian College. \$2,210.00

Woodhull Scholarship Fund:

Gift of Ellen M. E. Woodhull, of Washington, D. C., the income to be used for scholarships. 600.00

Byron Andrews Memorial Scholarship Fund:

A fund founded by Mrs. Belle Fisk Andrews, in memory of her husband, Byron Andrews, to provide scholarships "for ambitious and needy students, in English, Latin, Journalism, History, Literature or Political Science". 3,000.00

David Spencer Scholarship Fund:

Devise in trust of real estate in Knox County, Illinois, the income to constitute an educational fund which under certain conditions shall be used to aid in defraying the expenses of designated students at the University. 18,135.00

Farnham Scholarship Fund:

Gift of Mrs. Robert Farnham, of Washington, D. C., in 1871, to Columbian College for a scholarship in the College. 1,000.00

Powell Scholarship Fund:

Devise of real estate by Rear Admiral Levin M. Powell, of Washington, D. C., in 1886, to Columbian University for the free education of young men by way of preparation for entrance into the Naval Academy at Annapolis, or to fit them to become mates and masters in the Merchant Marine Service of the United States. 30,000.00

Mary Lowell Stone Scholarship Fund:

Gift of an anonymous person in memory of Miss Mary Lowell Stone, in 1893, to Columbian University for scholarships for needy women students in science in the Department of Arts and Sciences. 2,000.00

H. H. Carter Scholarship Fund:

Gift of Mrs. Maria M. Carter, of Washington, D. C., in 1896, in memory of her husband, Henry Harding Carter, to Columbian University, as a fundation for scholarships in civil engineering in Columbian College. 5,000.00

Nellie Maynard Knapp Scholarship Fund:

Gift of the Columbian Women, in 1915, in memory of Mrs. Nellie Maynard Knapp, to George Washington University, for scholarships for women in the Department of Arts and Sciences. 5,000.00

\$80,857.74

Medical School and Hospital Funds:*Cooper Medical Research Fund:*

Bequest of Mrs. Eleanor J. Cooper, of Washington, D. C., in 1905, to Columbian University on certain terms since modified by the Supreme Court of D. C. as follows: The income to be devoted towards the establishment and maintenance, in connection with the Medical Department of George Washington University, of a Research Laboratory, the work of this laboratory to be devoted to the investigation of the nature, causation, prevention, and cure of malaria and other infectious and contagious diseases. 10,000.00

National Park Seminary Hospital Endowment Fund:

Gift of students of National Park Seminary, of Forest Glen, Maryland, in 1906, to George Washington University, for the endowment of a bed in the University Hospital..... \$500.00

Woodbury Hospital Endowment Fund:

Bequest of Miss Ellen deQ. Woodbury, of Washington, D. C., in 1909, to George Washington University, for the reception and treatment of female patients in the hospital belonging to or connected with the University..... 9,583.33

Chapman Hospital Endowment Fund:

Bequest of Mrs. Susanna A. Chapman, of Washington, D. C., in 1911, to George Washington University, to be used for the purposes of the free wards of the University Hospital..... 1,350.90

Tree Hospital Endowment Fund:

Bequest of Lambert M. Tree, of Chicago, Illinois, in 1911, in memory of his mother, Mrs. Laura M. Tree, to Columbian University, for the purpose of establishing one or more beds in perpetuity in the University Hospital to be known as the "Laura M. Tree bed or beds"..... 10,000.00

\$31,434.23

Prize Funds:*Davis Prize Fund:*

Gift of Isaac Davis, of Worcester, Massachusetts, in 1847, to Columbian College, for prizes to be awarded annually to such members of the senior class as shall have made the greatest progress in elocution since their connection with the College..... 700 00

Ruggles Prize Fund:

Gift of William Ruggles, of Washington, D. C. (a professor in Columbian College and at one time Acting President), in 1859, to Columbian College, for a prize to be awarded annually for excellence in mathematics.. 500.00

Staughton-Elton Prize Fund:

Gift of Rev. Romeo Elton, of Exeter, England, in 1860 and 1865, to Columbian College, for prizes to be awarded annually for excellence in the Latin and Greek languages; one to be called the Staughton prize in Latin, the other the Elton prize in Greek..... 500.00

Fitch Prize Fund:

Gift of James E. Fitch, of Washington, D. C., in 1883, to Columbian University in memory of Willie E. Fitch, for a gold prize to be assigned annually under the auspices of the Scientific School..... 1,000.00

Walsh Prize Fund:

Gift of Thomas F. Walsh, of Washington, D. C., in 1901, to Columbian University, for a gold medal to be awarded annually for excellence in Irish history..... 300.00

Cutter Prize Fund:

Gift of Marion Kendall Cutter, of Washington, D. C., in 1902, to Columbian University, in memory of E. K. Cutter, for a prize to be awarded annually for excellence in the study of English..... 1,000.00

Hubbard Prize Fund:

Gift of Mrs. Gertrude M. Hubbard, of Washington, D. C., in 1907, to George Washington University in memory of her husband, Gardiner G. Hubbard, for a prize to be awarded annually to the student in the undergraduate department of the University who, having maintained throughout four years a high standing in the classes of American history, may be required to present the best essay upon an assigned topic in this subject..... \$1,000.00

Ordronaux Prize Fund:

Bequest of John Ordronaux, of Glen Head, N. Y., in 1909, to George Washington University, for the establishment of biennial prizes in the Law and Medical Departments..... 4,762.50

Sterrett Prize Fund:

Gift of Rev. J. Macbride Sterrett, in 1911, to George Washington University, in memory of his son, J. Macbride Sterrett, Jr., for a gold medal to be awarded annually to the student obtaining highest average in physics..... 200.00

\$9,962.50

ENDOWMENT RESTORATION FUND.

Non-permanent fund, principal and income usable for the purposes specified.

Endowment Restoration and Accretion Fund:

A fund created by the Board of Trustees, October 10, 1917, without limitation of time or amount, to provide means for the restoration of principal of Endowment Funds used for current expenses prior to August 31, 1910. After such restoration has been effected from the fund or from any other source, the fund to be called General Endowment Accretion Fund, open and perpetual, the income only to be used for University purposes..... \$2,387.66

ALUMNI ENDOWMENT FUND.

Permanent fund, principal to be invested and income to be used, for support of the general work of the University.

Alumni Endowment Fund:

A fund established by the senior class of 1920, as a testimonial of grateful appreciation, to be added to by succeeding graduating classes, the income only to be used for the general welfare of the University, as directed by the Board of Trustees..... \$337.00

Summary.

General Endowment Funds.....	\$259,231.94
Professorship Endowment Funds.....	121,023.16
Specific Endowment Funds:	
Scholarship Funds.....	\$80,857.74
Medical School and Hospital Funds.....	31,434.23
Prize Funds.....	9,962.50
	<hr/> 122,254.47
Endowment Restoration and Accretion Fund.....	2,387.66
Alumni Endowment Fund.....	337.00
	<hr/> \$505,234.23
Total Endowment Funds.....	

TRUST ACCOUNTS

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EXHIBIT "N."
ENDOWMENT FUNDS INVESTMENTS

As at August 31, 1921.

STOCKS.

American Telephone and Telegraph Co.:	
6 shares of stock.....	\$708.00
Chicago, Rock Island and Pacific Railway Co.:	
40 shares of 7 per cent Preferred Stock.....	4,000.00

BONDS.

Chicago, Rock Island and Pacific Railway Co.:	
\$24,000 4 per cent First and Refunding Mortgage Bonds, due 1934.....	20,959.17
*Chicago, Rock Island and Pacific Railway Co.:	
\$10,000 4 per cent Collateral Trust Bonds, due 2002.....	8,094.72
Virginia Railway Co.:	
\$300 5 per cent First Mortgage Gold Bonds, Series "A," due 1962.....	297.38
Washington Railway and Electric Co.:	
\$4,500 4 per cent Consolidated Mortgage Gold Bonds, due 1951.....	3,631.25
Potomac Electric Power Co.:	
\$15,000 5 per cent Consolidated Mortgage Gold Coupon Bonds, due 1936.....	15,025.00
City of New Brunswick, New Jersey:	
\$3,000 4 per cent Sinking Fund Bonds, due 1922.....	3,000.00
City of Medford, Massachusetts:	
\$3,000 4 per cent Sewerage Loan Bonds, due 1924.....	3,000.00
Liberty Loan Bonds—Second Series.....	2,100.00
Liberty Loan Bonds—Third Series.....	9,724.75
Liberty Loan Bonds—Fourth Series.....	1,950.00

TRUST NOTES.

Thomas R. Marshall Note:	
Secured by deed of trust on part of lot 5, square 253, and lot 70, block 30, in Columbia Heights; interest 5½ per cent; due May 5, 1922.....	5,000.00
Washington Sanitary Improvement Company Notes:	
Secured by deed of trust on lots in squares 509, 552, 615, 617 and 674; interest 6 per cent; due June 9, 1923.....	11,000.00
Agnes Plunkett Notes:	
Secured by deed of trust on part of lot 12, square 11, in Meridian Hill; interest 6 per cent; due February 4, 1923.....	200.00
Arthur T. Ramsey and Judith L. Steele Notes:	
Secured by deed of trust on lots 21, 22, 23 and part of lot 9, block 32, Columbia Heights; interest 6 per cent; due March 20, 1923.....	3,000.00
E. J. W. Revell Notes:	
Five of seven, secured by deed of trust on lot 40, square 44, University Park, interest 6 per cent; due September 9, 1921. Held by American Security and Trust Co., Trustee of Byron Andrews Memorial Scholarship Fund.	3,000.00
Interest in \$350,000 note payable to Washington Loan and Trust Co., Fiscal Agent of George Washington University, Trustee of Endowment Funds, secured by deed of trust, executed by the University to National Savings and Trust Company, Trustee, December 1, 1910, on Medical and Hospital Lands and Buildings; 1335, 1339, and 1341 H Street N. W., without interest; due on or before Decem- ber 1, 1920.....	323,430.23

* To secure these bonds the University has received 100 shares of Chicago, Rock Island and Pacific Railway Co. common stock.

REAL ESTATE.

Congressional Endowment:

Lot 8, square 13.....	\$3,847.65	
Lot 10, square 13.....	3,881.50	
Lot 12, square 13.....	3,715.00	
Lot 13, square 13.....	3,270.00	
Lot 9, square 16.....	2,594.20	
Lot 8, square 23.....	6,110.20	
Lot 2, square west of 23.....	3,562.00	
Lot 5, square 87.....	8,532.00	
		\$35,512.55
Powell Endowment, 1707 I Street N. W.....	30,000.00	
Chapman Endowment, Hyattsville.....	125.00	
Corcoran Endowment, sub-lot 148, square 672.....	1,800.00	
Spencer Farm.....	18,135.00	
		<u>\$503,693.05</u>

SUMMARY.

Stocks.....	\$4,708.00	
Bonds.....	67,782.27	
Trust Notes.....	345,630.23	
Real Estate.....	85,572.55	
		\$503,693.05
Cash on hand for Investment, August 31, 1921, Exhibit "A.".....	1,541.18	
Total Endowment Funds, Exhibit "M".....		<u>\$505,234.23</u>

EXHIBIT "O."

EXECUTORY TRUST FUNDS AND INVESTMENTS.

Non-permanent funds, principal and income usable for the purposes specified by the donors, each trust terminating on its execution.

Executory Trust Funds not Confined to Building Purposes:

Denman Law School Fund:

Bequest of Hampton Y. Denman, of Washington, D. C., in 1904, to Columbian University, for the use and benefit of the Law Department.....	\$8,485.50
Interest in General Property of the University.....	\$7,179.32

Rita Weller Note:

Secured by deed of trust on lots 16 to 34 and 36 to 44, square 849; interest 6 per cent; due October 25, 1921.....	1,000.00
Victory Loan.....	194.65
Cash.....	111.53

\$8,485.50

Law School Fund:

Amounts set aside by the Trustees of the University since 1911 for the benefit of the Law School.....	632.61	675.37
Victory Loan.....	42.76	
Cash.....		
		<u>\$675.37</u>

TRUST ACCOUNTS

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Jacques Law School Fund:

Bequest of Mrs. Mary Emma Jacques, of Washington, D. C., in 1912, to George Washington University, to be used in such manner as the Trustees may direct for the Law School. \$5,083.74

Rita Weller Notes:

Secured by deed of trust on lots 16 to 34 and 36 to 44, square 849, interest 6 per cent; due October 25, 1921. \$4,000.00
 Victory Loan. 827.28
 Cash. 256.48

\$5,083.74*Jacques Medical School Fund:*

Bequest of Mrs. Mary Emma Jacques, of Washington, D. C., in 1912, to George Washington University, to be used in such manner as the Trustees may direct for the Hospital of the University. 5,336.44

U. S. Steel Corporation:

\$3,000.00 5 per cent Sinking Fund Gold Coupon Bonds, due 1963. 3,060.00
 Metropolitan Railroad Co.:

\$1,000.00 5 per cent First Mortgage Gold Bond, due 1925. 1,070.00
 Liberty Loan Bonds—Fourth Series. 400.00

Victory Loan. 583.95
 Cash. 222.49

\$5,336.44*Mayer Hospital Fund:*

Bequest of Theodore J. Mayer, of Washington, D. C., in 1907 (received in 1916), to George Washington University, for the benefit of the University Hospital. 4,448.58

Potomac Electric Power Co.:

\$2,000.00 5 per cent Consolidated Mortgage Gold Coupon Bonds, due 1936. 2,028.75

Washington Gas Light Co.:

\$1,000.00 5 per cent General Mortgage Gold Bond, due 1960. 1,105.00

Liberty Loan Bonds—Fourth Series. 500.00

Victory Loan. 681.28
 Cash. 133.55

\$4,448.58*Hospital Improvement Fund:*

A fund contributed by the Trustees of the University for the improvement of the sanitary conditions at the University Hospital. 41.92

Cash unexpended. 41.92

\$24,071.55 \$24,071.55

Building Funds:*Law School Building Fund:*

Gifts of various persons towards a fund authorized by the Trustees of the University May 31, 1916, for purchasing a site and erecting a Law School building..		\$2,967.47
Washington Railway and Electric Co.: \$1,000.00 4 per cent Consolidated Mortgage Gold Bond, due 1951.....	\$860.00	
Victory Loan.....	2,043.82	
Cash.....	63.65	
		<hr/> \$2,967.47

General Building Fund:

Gifts of various persons toward a fund authorized by the Trustees of the University May 31, 1916, for purchasing sites, buildings and equipment, remodeling or rebuilding, and paying off obligations. This is an open subscription fund, to be continued and increased indefinitely.....		733.31
Liberty Loan Bonds—Fourth Series.....	100.00	
Victory Loan.....	583.95	
Cash.....	49.36	
		<hr/> \$733.31

Fifty Thousand Dollar Building and Grounds Fund:

Gifts of various persons toward a fund authorized by the Trustees of the University for purchasing sites and buildings, remodelling or rebuilding, and paying off obligations.....		405.00
Victory Loan.....	389.30	
Cash.....	15.70	
		<hr/> 405.00

1919 One Hundred Thousand Dollar Fund:

Gifts of various persons toward a fund authorized by the Trustees of the University, the proceeds, principal and interest, usable for grounds and buildings and for general purposes.....		7,729.91
Victory Loan.....	7,348.04	
Cash.....	381.87	
		<hr/> 7,729.91

Chemistry Building Fund:

Gifts of various persons towards a fund, principal and interest usable for a Chemical Laboratory Building.....		116.33
Victory Loan.....	97.33	
Cash.....	19.00	
		<hr/> 116.33
	<hr/> \$11,952.02	<hr/> \$11,952.02

TRUST ACCOUNTS

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SUMMARY.

Principal of Funds.

Funds not confined to building purposes.....	\$24,071.55
Building Funds.....	11,952.02

Investment of Funds.

Bonds.....	\$22,505.94
Trust Notes.....	5,000.00
Deed of Trust.....	7,179.32
	<hr/>
Cash.....	\$34,685.26
	1,338.31
	<hr/>
	\$36,023.57
	<hr/>
	\$36,023.57
	<hr/>

EXHIBIT "P."
 ENDOWMENT AND EXECUTORY TRUST FUNDS, INCOME AND EXPENSE.
 For the year ended August 31, 1921.

	Balance Aug. 31, 1920.		Year ended Aug. 31, 1921.		Balance Aug. 31, 1921.	
	Debit.	Credit.	Expense.	Income.	Debit.	Credit.
<i>Endowment Funds:</i>						
Congressional Professorship of English Fund		\$310.35	\$310.35	\$244.09		\$244.09
Corcoran Endowment Fund		1,419.60	1,419.60	1,116.36		1,116.36
Alumni Endowment Fund				14.07		14.07
Elton Professorship Fund		749.56		169.51		919.07
Alumni Professorship of Mathematics Fund		110.48		32.16		142.64
Founders of Columbian Women Scholarship Fund		1.75		96.15		97.90
David Spencer Scholarship Fund				902.10		902.10
Withington Scholarship Fund		132.79		14.74		147.53
Kendall Scholarship Fund		103.71		230.90		334.61
Davis Scholarship Fund	\$65.88				\$65.88	
Powell Scholarship Fund		653.35	2,512.59	2,000.04		140.80
Ellen M. E. Woodhull Scholarship Fund	206.25			23.28	206.25	23.28
H. H. Carter Scholarship Fund						38.77
M. M. Carter Scholarship Fund		86.45		256.50		342.95
Byron Andrews Memorial Scholarship Fund				38.77		38.77
Farnham Scholarship Fund		358.65	180.00	193.73		372.38
Nellie Maynard Knapp Scholarship Fund				852.89		852.89
Mary Lowell Stone Scholarship Fund			658.25	387.43		2,095.94
Cooper Medical Research Fund		2,366.76		19.40		296.30
National Park Seminary Hospital Endowment Fund		276.90		370.58		447.66
Woodbury Hospital Endowment Fund		77.08		47.52		108.08
Chapman Hospital Endowment Fund		60.56		387.43		477.12
Tree Hospital Endowment Fund		89.69		27.14		57.75
Davis Prize Fund	40.50		32.85		40.50	
Ruggles Prize Fund	110.25		50.00			763.75
Fitch Prize Fund				924.00		282.32
Walsh Prize Fund		144.09		138.23		

<i>Endowment Funds—Con.:</i>									
Cutter Prize Fund.....	93.31	50.00	38.77	.....	8.06	.....	82.08
Hubbard Prize Fund.....	3.17	50.00	38.77	.....	.....	.....	79.38
Sterrett Prize Fund.....	67.38	.....	12.00	.....	.....	.....	425.25
Ordronaux Prize Fund.....	237.43	200.00	387.82	.....	.....	.....	19.41
Staughton-Elton Prize Fund.....	.....	.....	19.41	.....	.....	.....	.....
<i>Executory Trust Funds:</i>									
Mayer Hospital Fund.....	.....	116.22	116.22	.....	.....	.....	.....
Denman Law School Fund.....	.....	63.11	63.11	.....	.....	.....	.....
Law School Fund.....	.....	42.60	42.60	.....	.....	.....	.....
Jacques Law School Fund.....	.....	257.20	246.58	.....	.....	.....	.....
Jacques Medical School Fund.....	10.62	213.83	213.83	.....	.....	.....	.....
Law School Building Fund.....	.....	61.41	61.41	.....	.....	.....	.....
General Building Fund.....	.....	9.21	9.21	.....	.....	.....	.....
Endowment Restoration and Accretion Fund.....	107.69	107.69	92.52	.....	.....	.....	92.52
Administration Building Fund.....	39.29	.....	.....	.....	.....	.....	39.29
1919, One Hundred Thousand Dollar Fund.....	288.81	376.75	87.94	.....	.....	.....	.....
Fifty Thousand Dollar Buildings and Grounds Fund.....	.....	2.58	.....	.....	.....	.....	.....
Chemistry Building Fund.....	53	1.98	1.45	.....	.....	2.58	.....	
Less: Balances.....	\$422.88	\$6,716.22	\$9,957.43	\$323.27	.....	.....	\$10,995.06
Net Balances.....	.....	.....	6,716.22	.....	.....	.....	323.27
.....	\$7,430.58	.....	\$3,241.21	.....	.....	.....	\$10,671.79

Summary.

Unexpended Income, Cash on Hand September 1, 1920.....	\$7,430.58
Income for Year:	
Endowment Funds.....	\$9,022.56
Executory Trust Funds.....	934.87
.....	9,957.43
Expenses for the year:	
Endowment Funds.....	17,388.01
Executory Trust Funds.....	5,463.64
.....	1,252.58
Unexpended Income, Cash on Hand August 31, 1921.....	6,716.22
.....	<u>\$10,671.79</u>

Form of Bequest.

FOR EXECUTORY ENDOWMENTS.

"I give and bequeath to the GEORGE WASHINGTON UNIVERSITY, of Washington, D. C., the sum ofdollars, free from legacy duty or tax, the same to be used as its Board of Trustees may determine."

FOR GENERAL ENDOWMENTS.

"I give and bequeath to the GEORGE WASHINGTON UNIVERSITY, of Washington, D. C., the sum ofdollars, free from legacy duty or tax the principal to be invested, and the income only to be used as its Board of Trustees may determine."

George Washington University Bulletin

MEDICAL NUMBER

This issue of the BULLETIN contains the papers read before
the George Washington University Medical Society
during the school year 1920-21.

Volume XX, Number 4

PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C., MONTHLY
DURING THE UNIVERSITY YEAR, OCTOBER TO MAY,
INCLUSIVE, EIGHT TIMES A YEAR.

OFFICERS

The membership of the Society is made up of medical alumni and members of the faculty of the Medical School. Meetings are held on the third Saturday of each month during the school year.

THE OFFICERS FOR THE YEAR 1920-21 WERE:

President—F. A. HORNADAY, M.S., M.D.

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COURSEN B. CONKLIN, S.B., M.D.

JESSE T. MANN, M.D.

F. A. HORNADAY, M.S., M.D.

ABSTRACT

Of an address before the George Washington University
Medical Society, January, 1921, on the Pathology of
Epidemic Encephalitis

Harold L. Amoss, M. D.

Rockefeller Institute for Medical Research, New York

Your Committee has kindly shared the responsibility in the selection of the subject of the Pathology of Encephalitis. No doubt you are quite surfeited with discourse on this disease which has lately come into fashion. I say fashion advisedly because such cycles do occur and recur in medicine. Very gradually there has come about the reactive tendency to narrow the group of cases diagnosed as lethargic or epidemic encephalitis and to discontinue to use this group as a dumping ground for the obscure and baffling. With the more intensive study of the group has come the reward of a more accurate knowledge not only of this syndrome but of diseases likely to be confused with it.

For the reason that the clinical aspect has received minute attention and the literature has now become voluminous and especially because I am not competent in this field, what I have to say will relate more to the pathological findings and especially to some experiments which we have carried out in an attempt to reveal the nature of the disease.

The internists and neurologists have carefully studied the clinical types, and several attempts at classification have been made on anatomic and psychiatric bases.

The pathological observations began with von Economo, who reported the first cases of the present epidemic which apparently began in Austria. This author described a group of cases characterized by disturbance of vision, headache and lethargy and accompanied by fever. He believed that he had encountered a hitherto unreported syndrome. However, Crookshank and others in going over the history of epidemics come to the conclusion that the disease existed many years ago in epidemic form. There are two significant records in history. The one described a few cases of a lethargic disease in Tübingen in 1712, and the other in 1890, making note of an outbreak in a small area at the junction of the Austrian-Italian-Swiss borders, and called at that time "nona."

The present epidemic spread from Austria to France and England in 1918 and six months later appeared in America.

Von Economo found at autopsy an inflammatory reaction in the brain, or encephalitis, and as a name for the syndrome chose the prominent clinical manifestation as descriptive of the encephalitis, viz., lethargic encephalitis. Since it is not the encephalitis which is lethargic, and as the disease came soon to be epidemic, many prefer to use the term epidemic encephalitis in describing their cases.

With the accumulation of pathological observations, certain predominating features appear. Whereas almost any part of the brain may be found involved in the inflammatory process, the thalamus and especially the *substantia nigra* is most constantly involved, and the lesion in some cases may be found in this portion alone, with no signs visible in other localities. The clinical reflection of this process is apparent in the disturbances of vision, and according to less fearful formulators of hypotheses, the lethargy is explained by the blocking of efferent impulses in the thalamus.

[Here a series of lantern slides of sections from various portions of the brain and cord were shown and the well-known lesions pointed out.]

In encephalitic brains no gross lesions like those coming from a malignant endocarditis are observed and generalized infections of recognized origin are easily ruled out. There is evidence of a primary disease having a predilection for the meso- and metencephalic region.

A disease about which comparatively little is known might be discussed profitably from a comparative standpoint. Thus epidemic encephalitis can be viewed in terms of epidemic poliomyelitis which has been the subject of extensive study. The points of distinction epidemiologically and clinically are well-known and will be referred to briefly later. The pathological pictures in the two diseases are sometimes strikingly similar so that from one or two sections it may be difficult to differentiate them. It is necessary to keep in mind first of all the distribution of the lesion throughout the central nervous system. It may be stated dogmatically that the affection in epidemic encephalitis is principally in the higher portions extending to the medulla, whereas in poliomyelitis the cord is principally affected and may extend to the midbrain. In the former disease the *substantia nigra* is usually affected in contrast with the poliomyelitic lesions. [The differential points in the lesions themselves were referred to in the slides exhibited.] It was observed that neuronophagocytosis may be present in the sections representing each of the diseases but we feel that it is not an essential complement of the picture in encephalitis as it is re-

garded in poliomyelitis. One point of distinction stands out clearly, viz., the presence of the lesions in poliomyelitis in the posterior root ganglia and their analogues in the brain and also in the sympathetic ganglia. This point is mentioned to emphasize the need of more extensive study of these locations at autopsy.

Another point of difference is the extent of meningeal involvement in poliomyelitis and the lack of it in epidemic encephalitis. This difference is reflected in the cerebrospinal fluid findings with which you are familiar.

[These differences were briefly described and attention called to the value of the examination of the spinal fluid in diagnosis.]

TRANSMISSION EXPERIMENTS

[The positive experiments of Strauss and Loewe of Mt. Sinai Hospital, New York, and of McIntosh in London and Levaditi and Harvier in Paris, were described.] The results of our own attempts to transmit the disease to laboratory animals during the past two years have been consistently negative. About 150 rabbits, 75 monkeys, some guinea pigs and young puppies have been used without success. The failures are difficult to reconcile in view of the large percentage (70 per cent) of successful takes reported by the first observers. Several points in the papers of each set of workers were discussed.

[Slides were shown of sections from various encephalitides as follows: Borna's disease, rabies, an epizootic among sheep, African sleeping sickness, Australian X Disease, also the effect of streptococcal infection in rabbits. These slides were presented in an effort to show that since the lesions in epidemic encephalitis are by no means characteristic and may represent infections of diverse nature, it becomes difficult to accept at the present time the animal experiments reported as positive evidence of the transfer of the virus of epidemic encephalitis.

Moreover, attention was called to the finding by Reasoner and by Brown in luetic rabbits of similar lesions, and the more remarkable observation by Bull that stock rabbits may exhibit such lesions at autopsy. In the latter case it is presumed that these rabbits had suffered from some epizootic while in stock.

Attention was called to the fact that in the reported cases of transfer of the virus, no increase of virulence or stabilization of the incubation period was observed as is true in rabies, poliomyelitis, etc. It is to be regarded then as doubtful whether epidemic encephalitis has been transmitted to laboratory animals.]

INFECTIOUS NATURE OF THE DISEASE

The epidemic character of the disease under discussion points to an infectious origin. No definite epidemiological data have been brought forth to show that it is communicable. In the absence of positive knowledge it is to be regarded as communicable and should be a reportable disease. Early attempts to disclose the causative factor of the disease resulted in an elimination of botulism as a probable factor. However, the toxic nature of the infection resulting from an unusual or new intestinal bacillary infestation has not been satisfactorily eliminated.

RELATION TO INFLUENZA

As you know, various attempts have been made to regard epidemic encephalitis as a sequel of influenza for the reason that the former appeared after the pandemic of the latter. Attention was called to the fact that the time of occurrence in Austria was the reverse. Encephalitis appeared in that country before the influenzal wave.

RELATION TO POLIOMYELITIS

In the course of the many discussions of encephalitis lethargica which have followed the pandemic of that unusual disease, the question of its relation to epidemic poliomyelitis has been raised either incidentally or directly. Von Economo,¹ who reported the first Austrian cases, believed that poliomyelitis could be excluded, while Draper,² who studied the residual pareses in some of the cases in the English outbreak of 1918, concluded that many of them were true cases of poliomyelitis; however, he called attention to certain phenomena distinctly unusual in experiences with poliomyelitis and left open the question as to whether in the whole group there existed a subsection representing a new disease. Crookshank,³ in discussing the epidemiology, has expressed the view that poliomyelitis, lethargic encephalitis, and possibly still other paralytic epidemic affections, may be different manifestations of one etiologically simple malady.

There are grave objections to the confusion of the etiology of poliomyelitis and lethargic encephalitis. The divergent clinical manifestations have been more marked as the epidemic outbreak of lethargic encephalitis has endured and become more widely distributed. The great difference in the communicability of this affection as compared with poliomyelitis is another point of capi-

¹ von Economo, C., *Wien. klin. Woch.*, 1917, xxx, 581.

² Draper, G., *Rep. Local Gov. Bd. Pub. Health and Med. Subjects, New Series*, No. 121, 1918, 62.

³ Crookshank, F. G., *Boston Med. and Surg. J.*, 1920, cxxxii, 84.

tal distinction. Apparently the seasonal variation in the prevalence, namely, the occurrence of poliomyelitis in the summer and autumn months and of lethargic encephalitis in the winter and spring months, is no longer so sharp. Netter¹ has reported summer cases of the latter malady in Paris. Moreover, from information furnished by the Department of Health of the City of New York and the statistics in the *Public Health Reports of the United States Public Health Service* it appears that a similar extension of the period of prevalence is occurring in the United States.

There is one means of distinguishing epidemic poliomyelitis and lethargic encephalitis which has not yet been applied. It relates to the point whether the serum of convalescent cases of lethargic encephalitis can neutralize the virus of poliomyelitis. This fact is readily determined experimentally by the method described by Amoss and Eberson.² The principle of the test lies in the power of a neutralizing serum, when administered intraspinally, to prevent the development of poliomyelitis in the monkey following the intravenous injection of a large dose of the virus.

The blood serum of four cases of lethargic encephalitis was used in the test, one from a patient convalescent in the fifth week of the disease, the second in the fourth month, the third in the fifth month, and the fourth 15 months after the attack. The tests were controlled by two experiments in which the same procedure was followed, except that one monkey received intraspinal injections of normal human serum and the other intraspinal injections of poliomyelitic serum from a monkey which had had experimental poliomyelitis nine months before and recovered with residual paralyses.

Under the conditions of the test,³ the serum of human beings and monkeys recovering from poliomyelitis neutralized the virus of poliomyelitis but none of the sera from the cases of epidemic encephalitis possessed this power.

The following conclusions were drawn:

Lethargic encephalitis is an epidemic disease, the main manifestations of which relate to injury inflicted upon the central nervous system and in particular the basal ganglia of the brain.

Poliomyelitis is an epidemic disease, the main manifestations of which relate to injury inflicted upon the central nervous system and in particular the gray matter of the spinal cord and medulla oblongata.

At the outset of the epidemic of lethargic encephalitis the two

¹ Netter, A., *Bull. et mem. Soc. med. hop. Paris*, 1920, xlv, series 3, 1030.

² Amoss, H. L., and Eberson, F., *J. Exp. Med.*, 1918, xxvii, 309.

³ These experiments are described in detail in the *Journal of Experimental Medicine*, February, 1921.

diseases tend to prevail at distinct and different seasons of the year, although recently cases of epidemic encephalitis have arisen in the midsummer months. The two maladies therefore are perhaps less distinguished by seasonal prevalence than has been supposed.

They are, however, distinguished by great differences in communicability to monkeys. Epidemic poliomyelitis is readily transmitted through inoculation of the affected central nervous tissues of man to monkeys, while it may still be regarded as doubtful whether lethargic encephalitis has been communicated to monkeys in this manner.

As the experiments reported in this paper show, the two diseases can be distinguished through the power of blood serum under certain circumstances to neutralize the virus of poliomyelitis. The blood serum of convalescent cases of poliomyelitis whether in man or monkey possesses this neutralizing power, while the blood serum of recently convalescent cases of epidemic encephalitis is devoid of it.

On the basis of the distinguishing characters described, it is regarded as desirable at the present time to hold epidemic poliomyelitis and epidemic encephalitis as integrally distinct affections. The latter also may be infectious, yet the main lesions of poliomyelitis are present in the spinal cord, and of epidemic encephalitis in the midbrain.

[Moving pictures of several cases of epidemic encephalitis were shown.]

ANALGESIA IN OBSTETRICS

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The question of a practically painless labor has been brought quite prominently before the public, as well as the medical profession, in recent years. The medical and public press have both been busy, and the energetic, sensation-seeking "movie" has been right on the job. The effects of this agitation have not been all bad, since the more insistent demand for relief on the part of expectant mothers has undoubtedly stimulated research and helped to fix the attention of physicians on the extreme desirability of avoiding the baneful effects of the prolonged fear, pain, exhaustion and shock of labor.

While this combination undoubtedly adds its contribution to the quite high immediate mortality in obstetrics we see its results oftenest in the broken mental and physical health dating from the first labor. The more or less delicate primipara, allowed to go unguarded through her first labor, oftentimes experiences a very profound mental and physical shock, recovery from which is very slow at best. You never see such a one, on her bed of confinement, deliberately, coolly and similingly planning for the advent of the next child. On the contrary, the thought of a second labor is distressing to a degree.

If we can bring to such women a comparatively painless delivery we have accomplished something well worth while. We protect the health of mothers and children; we help to stem the tide of the steadily decreasing birth rate; we prevent more criminal abortions than the legal menace of the penitentiary, and we earn and receive the utmost gratitude of our patients. Queen Victoria knighted John Y. Simpson for this very thing, which shows how one mother felt about it. Now that women are beginning to participate on equal terms in the government of this country we need not be surprised if before so very long a practical method of mitigating the pains of labor becomes a recognized public-health question.

Next to measures and precautions taken for the protection of the very life of mother and baby from the dangers directly incident to parturition, the highest duty of the obstetrician is, it seems to me, to relieve suffering and prevent the shock and exhaustion which, from the beginning of time, have been associated with labor.

It is a duty in a much broader sense than the mere obligations of simple humanity alone. Few of us have any adequate conception of the profound effects of fear, or have attempted seriously to sound the depths of the dread in the minds of most women as they anticipate the pangs of childbirth. Yet if we think but a minute of our associations with these cases, recalling but a few of the many anxious confidences of our maternity patients, and then remember that this anxiety is common to *all* motherhood, we begin to get a glimpse of what a far-reaching thing it may become. We can understand how this fear of pain has been a more able assistant to the agitator for birth control than any possible economic argument; how it has diminished greatly the total number of pregnancies; how it has caused many an expectant but not very courageous mother to seek the services of the abortionist; how it may react viciously on the nervous system of the mother, and how it may affect the development of the babe *in utero*.

It is not the purpose of this paper to discuss in any detail the several methods of relieving pain in labor other than the use of nitrous oxide with oxygen. The morphine-scopolamin method, or "twilight sleep," so widely advertised some years ago, has had its vogue and failed to meet with the approval of the profession. A prolonged second stage, relaxed uterine muscle predisposing to post-partum hemorrhage, asphyxiated and narcotized infants, and too many forceps cases, caused its practical abandonment as risky and unsafe. Attention diverted elsewhere has resulted in the development of a technique in the use of nitrous oxide with oxygen which we believe to be by far the safest and most satisfactory method so far discovered for effecting delivery without excessive pain, shock and exhaustion.

Occasionally we encounter a woman who is disappointed in the measure of relief obtained by the use of gas-oxygen analgesia. The multipara, who has had children without analgesia, regards it as a wonderful boon and is most thankful for the man with the gas. Those who may think it insufficient are apt to be inexperienced primiparae, of a highly nervous type, possibly with very irritable uteri, who can not tell when a contraction is approaching, who are apt to become hysterical and unresponsive to instructions, or who may have expected a labor without labor and without any pain at all. In the great majority of cases its success is most gratifying, in others it is reasonably satisfactory, while in about 2 per cent of cases in my experience it has been unsatisfactory and failed.

The only absolutely painless delivery is surgical with full surgi-

cal anesthesia. The mother should be made to understand this from the first. The physician when engaged, if he means to use analgesia, should have a complete understanding with the expectant mother. Especially is this important if she be a primipara. The fact that he is engaged argues that she has confidence in him and will be willing to follow his instructions. He should go into details of explanation with her in order that her complete cooperation may be obtained. She should understand that anesthesia and unconsciousness is not desired, and why this is so. Convince her that the pains will be rendered quite bearable, but that at the same time she must consciously appreciate the fact that the uterus is contracting in order that she may assist with voluntary effort. No woman should be allowed to expect to be relieved of all effort, but all should be plainly told that labor means exactly what the dictionary says. Explain that nature requires that the child be born through the efforts of her own forces, but that the assistance of the analgesia will materially shorten the time of labor and relieve the pain and suffering tremendously, and impress upon her that the degree of her relief from pain will measurably depend upon the completeness of her own cooperation with the anesthetist.

The time when the gas should be started depends somewhat upon the patient. If she is doing well, both in mind and body, the best time to start the gas is with the beginning of the second stage. But if you wish to secure successful analgesia and have a satisfied patient much may depend on the judgment displayed in the management of the first stage, and the time of starting the administration of the gas. The first stage of labor is often long drawn out and very wearing on the patient. If you should happen to be dealing with the combination of a neurotic woman and spastic rigidity of the os the patient may come to the second stage verging on hysteria and next to impossible to manage at the time when you most need her intelligent and hearty cooperation. Nothing but complete anesthesia will satisfy her then. This type of patients may suffer much shock in the first stage, should be watched carefully and relieved as much as possible, starting gas if necessary. You are fortunate if you have a skillful, tactful nurse with such a woman. A good nurse can do much to prevent discouragement and keep a nervous woman from going to pieces. Morphine in moderate doses may be used to advantage here, diminishing the suffering and assisting by relaxing a rigid os, being careful, however, not to delay the labor, and keeping in mind its possible effects on the infant. Easing a patient through the first stage conserves her nerve force and energy for the real labor which is to come later. If gas is for any rea-

son started early the patient should not be allowed to work against an undilated os or other obstruction, as this is mere wanton waste of strength which may be badly needed later when the head is on the perineum. But once the cervix is fully dilated, and voluntary effort may be expected to bring progress, we should then show the patient how to bring her voluntary expelling forces to bear most effectively; explain again the importance of anticipating and giving quick warning of approaching contractions of the uterus; instruct her how to breathe the gas to the best advantage and hold the last deep breath in the lungs for absorption while pulling; we may urge her to the point of making the very best use of every contraction. She should be made to rest and prevented from wasting strength between contractions.

Most intelligent women, undistracted by suffering, after a little practice, learn the technique and gladly cooperate. It is the primipara who requires the constant coaching, having had no experience. She is most apt to shirk her part, and it sometimes helps a lot to let her have a real pain without the gas in order to make her appreciate the help it gives, and keep her up to the scratch.

As to the question of safety, it has been asserted by Metzger and others that there is no such thing as a *safe* method for painless delivery. If this be conceded we may also assert, just as truthfully, that there is no such thing as *delivery* without danger though without attempt at pain control. There can be no maternity without risk. The point of argument is as to which is the safest labor for both mother and child, that in which the effects of pain are more or less disregarded, or what we may term the "anoci" method, in which every effort is made to neutralize all of these harmful nerve reactions, and prevent the great physical exhaustion. From my experience I do not believe that gas and oxygen properly administered adds anything to the danger, but, on the contrary, is a life-saving measure, either to mother or babe, or both, in many cases, and pays dividends in every case in which it is used, unless it is very carelessly and ignorantly handled.

As to maternal risk, I think we need not discuss this in the light of our present knowledge of the safety of gas-oxygen as an anesthetic.

As to danger to the child (and it is on this ground that most objections are made), I wish to state my belief that the safety of the babe is not threatened by gas-oxygen. It is to be remembered in the first place administration is intermittent with the pains during the greatest period of its use, during which the uterus

is in a state of contraction and the foetal circulation is interrupted so that the babe receives little or no gas. I have given gas-oxygen analgesia in two cases lasting over eight hours, one of which was terminated by Caesarian section, the other by forceps, in neither of which was the child cyanosed, both cried promptly, and both are normal children after four years. We do get blue babies sometimes, as we do without analgesia. This is not caused by nitrous-oxide. It is caused by pressure on the cord in cases where the head lies low in the pelvis for a long time, and this is less likely to occur with analgesia than without, for the reason that the mother will make better use of her contractions, and perineal dilatation takes place more rapidly. Cyanosis in the child may be quickly cleared up by giving oxygen to the mother, and the cord should never be clamped until circulation in it has stopped, if the child shows any sign of cyanosis. Objection has been made to me that the placenta might be separated so that oxygen could not be administered in that way. This is not a valid objection, because if the placenta is detached the cyanosis of the child could not be due to nitrous oxide, but must be due to interrupted circulation.

Further objection has been made that haemolysis may occur and the use of nitrous-oxide for more than a few hours predisposes to hemorrhage in the new born. Haemolysis is an accompaniment of asphyxia, whatever the cause of the asphyxia may be. Asphyxia can and should be controlled in a properly given analgesia. It is much more apt to occur when the head is long delayed on the perineum, as stated before, and this is more apt to occur without gas-oxygen than with it. Interference to terminate the labor is the remedy for this.

Other objections are made, none vital, all debatable. The consensus of opinion of the great majority of those who have used this method of relieving pain in labor is that by it we get:

- A shorter second stage, practically painless.
- Little shock or physical exhaustion.
- Fewer post-partum hemorrhages.
- Fewer lacerated perineums.
- More living and better babies.
- Quicker and more complete convalescence.

THE ROENTGEN CONTROL OF UTERINE BLEEDING

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Excessive uterine bleeding is one of the most common, as well as one of the most significant symptoms referable to the female generative organs. Often it is the only symptom for which women seek relief, and its control is frequently a matter of the gravest concern.

All such cases merit a most painstaking and thorough examination, both general and local, with a view to determining the cause of the excessive flow. Such examinations should be conducted by those specially skilled in gynecologic diagnosis. The choice of the best method of treatment is often contingent upon the consideration of a number of different factors, which require the greatest discrimination and nicety of judgment. Of course, the matter of choice is not of much concern to those who recognize only one method of treatment. Indeed until the use of the Roentgen ray and radium came into vogue in the treatment of certain cases of excessive bleeding, the discussion of its control was confined almost exclusively to the kind of surgical operation indicated. This discussion still goes on, but to those who recognize some virtue in the newer method, there has come an added responsibility of choice which should not be evaded or ignored. That the method is of value is evidenced by the fact that it has continued to grow in favor in spite of much opposition, and, while its scope of usefulness is still a matter of considerable debate, it seems fairly well established, on the basis of cumulative experience, to be superior to the operative methods in properly selected cases.

The literature on the subject is entirely too voluminous for review, but it is noteworthy that a large number of testimonials as to the value of the Roentgen ray and radium in the treatment of metropathics come from surgeons as well as from those who specialize in the use of these agents, thus eliminating to a certain extent the question of personal interest which unfortunately, but quite naturally, enters into a large number of medical publications.

Matas (1) in a recent article states that the use of radium has cut down his operations for uterine fibroids and fibromyomata by over 60 per cent.

Beclere (2) reports 400 cases of fibromyomata treated with the Roentgen ray with satisfactory results. In only four instances was a subsequent surgical operation necessary. He considers Roentgen treatment to be applicable to practically all uterine fibromyomata regardless of their size.

Stacy (3) reports 600 cases of menorrhagia treated at the Mayo Clinic with radium. The results were in general quite satisfactory.

The cases in which Roentgen treatment appears to be well nigh ideal are:

First: Women over 35 years of age with excessive bleeding due to a fibrous type of uterus or with no demonstrable pathology.

Second: Women over 35 years of age with small or medium size uncomplicated fibroids not of the submucous polypoid variety, in which excessive bleeding is the only or predominant symptom.

The liability to diagnostic error is one of the chief arguments against the routine employment of Roentgen therapy in these cases, the most grave of which is the failure or inability to recognize sarcomatous degeneration of uterine myomata.

It is interesting and instructive in this connection to review an article by Evans (4), in which he analyzes the records of the Mayo Clinic from 1906 to 1918, inclusive, with reference to Malignant Myomata. He concludes as follows: "The tumors are difficult to distinguish in the earlier stages from ordinary fibromyomata; they are not cured by X-ray or radium, and the surgical removal of all fibroids of any appreciable size seems to be the best treatment." He again states: "The present plan of surgically removing all uterine fibroids of appreciable size seems to be the procedure of choice. The low operative mortality figures which are shown by the work of skilled surgeons in the better hospitals are an argument in favor of the operative method."

When we remember that at least 20 per cent of all women over 35 years of age have fibroids, such advice on the face of it would appear to be ultra radical. Just how many of these are of "appreciable size" is probably unknown, but as a matter of fact the majority of fibroids require no treatment of any kind.

It is difficult also to understand how such a conclusion could be drawn from the statistics presented. The analytical study covers approximately 4,000 cases of myomata in which sarcomatous degeneration was recognized pathologically in 72 instances. It is pointed out that there is great variation in the degree of malignancy of these tumors, and that the more malignant types are nearly always fatal in spite of all treatment—facts which are quite in keeping with the history of sarcoma elsewhere in the body. Thirteen of the 72 malignant cases were dead within 17 months af-

in deep Roentgen therapy. We ordinarily expose through from four to eight portals, and feel that in the average case even fewer would be sufficient. The treatments are repeated at intervals of four weeks. As a rule all bleeding ceases after the second treatment, but a third is usually given. If the third treatment does not produce the desired effect we become strongly suspicious that there has been an error in diagnosis and an explanation of the failure is sought. Treatment is discontinued when the menopause is definitely established, and the patient is advised to return to her attending physician for observation at stated intervals. In a few instances in which we have treated young women we have endeavored to control the bleeding without producing menopause, by the administration of a relatively small dose, and while we have had some success, we have no strong convictions as to the general practicability of the method.

A word of caution as to the potential danger of Roentgen therapy is never amiss. As long as dangerous instruments are made and used, whether it is a tool in the hands of the surgeon, a poison in the hands of the internist, or agents like the Roentgen ray and radium in the hands of the radiotherapist, it may be reckoned as one of the surest of probabilities that there will continue to be an occasional unfortunate mishap in their use. While the latter agents are relatively quite as safe, or safer than the two former, unfortunate consequences in their use are peculiarly liable to censure. This is particularly true with reference to the Roentgen ray because its disastrous effects are not hidden, as may be the case with the others, but are given the greatest publicity, much to the detriment of one of the most valuable of therapeutic agents. "Safety first" is a motto which is particularly applicable to its use in the treatment of uterine bleeding. Rightly used, in properly selected cases, it is as nearly a specific as any therapeutic procedure in the whole domain of medicine, and we certainly have no more grateful patients than the women who have realized its benefits.

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POSSIBILITIES OF INTRA-VAGINAL X-RAY THERAPY WITH DESCRIPTION OF TECHNIQUE

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The intra-vaginal application of the X-rays is by no means an innovation in x-ray therapy. For one reason or another the method has fallen into disuse and at the present time it is the exception rather than the rule to treat intra-vaginal conditions by directing the x-rays into the vagina.

The author is cognizant of the superiority of radium in treating the cavities, but this substance is not within the reach of all, and even when it is there are some cases where the X-rays would be preferred—if they could be used conveniently. In the average case of malignancy the combined use of radium and the X-rays offers the most efficient means of delivering radiant energy, and definite improvement in technique in the application of either agent is desirable.

Assuming, then, that the above premise is correct, it follows that the most convenient method of employing the X-rays with respect to accessibility of part treated, distance, and patient's comfort, is the one to be adopted.

Any measure that offers even a modicum of assistance in the successful management of malignant disease is thankfully received, and with respect to radiant energy in general the dictum may at this time be safely promulgated that the quantity to be delivered in a given case of malignancy is that which stops just short of accomplishing more harm than good.

During the past summer the urgent need for radiotherapy in a certain case of inoperable carcinoma of the vagina and cervix, prompted the use of the X-rays by a technique with results which apparently justify more than passing notice:

Mrs. W., age 39, was first seen by Dr. A. B. Little, of Takoma Park, D. C., April 26, 1920, who recognized the condition promptly and referred her to Drs. G. Dent Townsend and E. M. Parker, Washington, D. C., for surgical treatment. Dr. Townsend's report is as follows:

"There was a profound cachexia and emaciation which was in keeping with the alleged 35-lb. loss of weight during the previous five months of her illness. Vaginal examination showed a cauliflower mass involving the cervix, which bled

easily and from which exuded a sero-sanguineous, offensive discharge. The anterior vaginal wall showed ulceration and induration for half its length and the posterior wall to a lesser degree. The uterus was enlarged with absolute fixation and no satisfactory opinion could be given with reference to the adnexa on account of invasion in that region. The rectum was apparently not involved. The bladder was negative excepting for tenderness and frequency of urination, which was increased by my examination. There was a rather profuse hemorrhage the day following the examination, which was controlled by a pack. I considered the case inoperable and in consultation with Dr. Parker referred the case for x-ray therapy. After the first application of the x-rays I removed a small fragment of the tumor for laboratory study, and received a report from Dr. Lester Neuman to the effect that it was a 'flat cell carcinoma.'

"Again in October, five months later, I examined the patient and found a complete disappearance of the cachexia with a gain in weight of 25 lbs. The mass in the vagina was replaced by apparently healthy healed scar tissue, and the remnant of the cervix was represented by a small granulating surface corresponding to the internal os from which there was a muco-purulent discharge. The thickened walls of the cul-de-sac made examination of the uterus difficult, but it could be quite readily found retro-displaced and normal in size. For a case that seemed hopeless in April the results so far are very gratifying."

Treatment: The patient was admitted to Garfield Hospital, May 25, 1920, and received intra-vaginal X-ray treatments from then to November 8, 1920, at varying intervals—a total of one hour and 50 minutes unfiltered X-rays from a Coolidge tube passing 6 ma. at an anode cervix distance of 12 inches, backing up an 8-inch gap for 15 and 20 minutes at each treatment.

In addition to this, cross-firing through skin areas—6 anterior and 4 posterior—was resorted to with the ordinary deep therapy technique at the usual intervals. The very definite improvement in the appearance of the growth at the time of the second intra-vaginal raying leaves no room for doubt that the malignant cells were rapidly responding to the rays directed into the vagina, as the cross-firing from without was wholly inadequate in the brief period to have excited any material change.

The intra-vaginal treatments were followed by nausea identical with the well-known X-ray sickness, and rather more apparent than when treatments were given through skin areas. A careful, searching examination by Dr. Townsend, Dr. Parker, and myself at the time revealed no trace of active malignant growth other than set forth in Dr. Townsend's report, and this was corroborated by the patient's general appearance and the complete absence of symptoms suggesting pelvic pathology of malignant character.

As an additional factor of safety, on November 11, 1920, I made an application of 50 mg. of radium for 20 hours, following the generally accepted technique. This was followed by a reaction of moderate severity. There was nausea and some trifling abdominal discomfort for a few days. The patient then returned to New York and reported regularly every two weeks to the effect that improvement in her general health was steady, so much so that she resumed her household duties without discomfort or fatigue.

Notwithstanding her favorable condition, and because of the probability of malignant cells remaining, it was deemed advisable to subject her to further treatment and she accordingly received 2500 mg. hrs. of radium in two treatments the first week in January—making a total of 3500 mg. hrs. of radium applied to the interior of the uterus in addition to X-ray therapy.

These treatments were followed by a more pronounced systemic reaction. There was pallor, weakness and some nausea—the latter symptom of but a day or two duration. Her last report, just received, is to the effect that she considers herself entirely well and goes about her usual duties as she did before the onset of her trouble a year ago.

Your attention is directed to the salient features of this case. A woman of middle age, suffering from a hopelessly inoperable carcinoma of the cervix, of a type formerly considered fatal, came under observation for treatment in May, 1920. The emaciation, cachexia, foul discharge, incessant bleeding, and cancerous mass in the vagina presented a picture which has, as a class, defied the efforts of the most skillful surgeon and made for a prognosis which held out no other hope than that violent hemorrhage might serve to shorten a superlatively miserable existence.

The effect of the X-ray in bringing about a complete cessation of symptoms is highly encouraging not only in connection with this case but others which have come under our observation, as well as those which are being added to the literature from time to time by the comparatively limited number of roentgenologists throughout the country.

The certain improvements in types of X-ray apparatus and technique of application, together with the results obtained in this class of cases, warrants the feeling that we have at our command an agent whose beneficial effects are as yet not fully appreciated, and that by more intensive X-ray therapy we may occasionally save lives which under other methods of treatment are doomed.

Technique: The apparatus required for this method of intra-vaginal raying in addition to the usual transformer treatment

SENSORY APHASIA

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It is generally said that there are three steps in the language process: (a) The knowing of what is to be said; (b) the formulation of this in terms of imagery; and (c) the complicated course of innervation resulting in the actual expression.

Language may be classified as mimetic, phonetic, and graphic, depending upon the sign employed, whether gestures, or words, or writing. According to Luciani, psychological analysis and clinical observations show that the mechanism by which ideas are clothed in verbal symbols is quite complex, involving the intervention of three associated centers, viz., the center for the motor images of words, Broca's, at the foot of the left third frontal convolution, the center for phonetic verbal images, Wernicke's, in the left first temporal convolution and supramarginal gyrus, and the center for visual verbal images, in the occipitoparietal lobe near the visual area.

According to Lloyd, there are four elements in language—auditory, motor, reading, and graphic—which are represented in fairly well-determined areas of the cortex. The auditory is the primary center, conventionally located in the first and second temporal gyri. It is primary in the sense that it is the center first used by the child in acquiring language, and its importance is so great that it may be called the foundation stone of the entire linguistic edifice. Motor language, located by most observers in the third frontal convolution, is next in importance in evolution, for the child, having heard words, next attempts to utter them himself. These two centers form the great language organ, having been evolved in the history of the race long before writing was known and being still the only parts used in many uneducated people.

Auditory language is the primary fact. The first knowledge of language is acquired by hearing it spoken. This is pre-eminently the center for the mother tongue, and even in the so-called motor aphasia it is usually more or less impaired. In other words, ordinary aphasia is really sensori-motor. However, if the lesion is confined to the temporal convolutions, we have word deafness, in which the patient fails to understand what is said to him. But the motor apparatus, being originally dependent upon the auditory in the acquisition of speech, is also affected,

not as a true motor aphasia, but as a kind of paraphasia. It is noteworthy that, because of this improper use of words, giving a jargon or gibberish of speech, these patients have often been mistaken for demented. This sensory aphasia has been much commented on, and not a few cases are now on record in which the lesion was found post-mortem in the temporal convolutions.

The mechanism of language is much more complicated in the literate than in the illiterate. It depends on the harmonized activity not only of the auditory and motor word centers, but also of the visual word centers. According to Luciani, there are many clinical cases in which word deafness (sensory aphasia), from lesions confined to the auditory center, is associated with loss or disturbance of speech (motor aphasia), but there are no cases on record of word blindness due to lesions confined to the visual sphere in which the patient was incapable of speaking.

The definition of aphasia given in Webster's Dictionary, though interesting and practical, is hardly orthodox. It is: "Loss of power of speech or of the appropriate use of words, the vocal organs remaining intact, and the intelligence being preserved."

It really can not be said that any cortical area is connected with definite speech functions. Entire areas of the cortex have been removed with the intention of abrogating speech, but without success. On the other hand, lesions corresponding to those expected are often found. The most interesting are in connection with agraphia. This is generally taken as dependent secondarily upon lesions of Wernicke's area about the angular gyrus, but cases of almost pure agraphia have been operated on, to find nothing wrong there. On the other hand, accepting the second frontal convolution as the area where writing images are stored, the convolution has been removed or destroyed without affecting writing. Also, cases can be cited which seem to prove that Broca's convolution is, and also that it is not, the chief seat of motor speech memories. These pathological conundrums probably mean that there are several routes between different brain areas, all more or less involved in the final production of intelligent speech.

Aphasia is a symptom of many cerebral conditions. Before Broca's time the various theories of speech were of little interest to clinicians, most of them being confused with vague theological and metaphysical conceptions. The first real attempt to localize the faculty of articulate speech was made by Gall in 1808.

Bouilland, a follower of Gall, published in 1825 a memoir called "Clinical researches to demonstrate that loss of speech corresponds with lesions of the anterior lobules of the brain, and to confirm Gall's opinion on the seat of the organ of articulate language."

He reached the following conclusions from his clinical and anatomopathological observations: The human brain has an important function in the mechanism of a great number of movements; it regulates such as are under the control of the intelligence and the will. There are many special organs in the brain, each of which governs special movements. The organs for the movements of speech are directed by a distinct and independent brain center, which is in the anterior lobes. Loss of speech is due to either loss of memory for words or loss of the muscular movements from which speech results. Loss of speech does not imply loss of the movements of the tongue as an organ of mastication or deglutition of food, nor loss of taste, which suggests that the tongue has three distinct connections in the brain. Many nerves have their origin in the brain; those innervating the muscles which cooperate in the production of speech, originate in, or at least necessarily communicate with, the anterior lobes.

In 1861, Broca presented his first memoir to the Anthropological Society of Paris, in which he stated, on the basis of certain clinical cases, that lesions of the lower segment of the third frontal convolution of the left hemisphere (the so-called *pars opercularis*, or Broca's convolution) involved loss of the faculty of speech—that is, *aphemia* or *aphasia*. He showed this to his own satisfaction to be the seat of the cerebral organ of verbal articulation, or more precisely of the memory of a certain kind of co-ordinated movements necessary for the articulation of speech. In cases of lesions of this convolution, the memory of words is really not lost, nor are the nerves and muscles employed in phonation and spoken language paralyzed; it is only the memory of verbal articulation that is affected. Broca says, "We now know that all the parts of the brain properly so-called have not the same functions, that all the convolutions represent, not a single organ, but many organs or groups of organs, and that there are large distinct regions of the brain which correspond to the large regions of the mind."

A fact of special importance, because of variance with Munk's cortical deafness, is the absence in medical literature of any description of cases of deafness or marked loss of hearing in one or both ears, when the autopsy shows clearly and conclusively that there was a destructive lesion exclusively localized in the cortex. Clinical observation brings out a no less important positive fact, *viz.*, that lesions of the cortex of the temporal lobes produce a curious mental disorder during life, characterized by the fact that the patients, while perfectly aware of the least sound or noise, are incapable of understanding the significance of the words they hear. Wernicke in 1874 first described this condition, which he

termed "sensory aphasia," because he counted it an affection of the paths of auditory speech. Kussmaul in 1876, after a more profound analysis, regarded it as an incomplete form of psychical deafness and called it "word deafness," which finds its complement in word blindness.

Wernicke described five types of aphasia, motor, sensory and those of conduction, but his greatest contribution to the subject, as already referred to, was the localization of sensory aphasia in the first temporal convolution. Henceforward, aphasia became an extremely complicated problem. In 1897, Lautzenberg summarized the situation regarding the disorders of speech as follows: "The outstanding characteristic of aphasia is that every observer thinks it necessary to formulate a theory of his own before recording the facts that he has noticed."

Lesions of Wernicke's center produce word deafness. Lesions of Broca's and Wernicke's centers may produce alterations on the sensory side of speech, and total or partial incapacity for phonetic expression with more or less disturbance of internal speech. Dejerine says, "The auditory images are the first to be formed; they are the more deeply traced and always control the processes of internal language; the motor images of articulation next form very rapidly and unite closely with the auditory images. The union of these two contributes the first and indispensable basis of internal language."

The views of Marie and Dejerine are strongly opposed in many respects. Dejerine admits that the essence of aphasia is a failure of comprehension as regards spoken or written words, but he maintains that there is a difference between sensory and true motor aphasia. He believes that sensory aphasia is of necessity attributed to a lesion of Wernicke's zone, whereas true motor aphasia results from a lesion of the "anterior speech zone," a region variable in its extent, but which may be said to comprise Broca's area, the anterior segment of the island of Reil, and a variable area of the adjacent regions.

True aphasia, according to Marie, is one and one only, in that it is invariably associated with a failure to comprehend the association of the outward forms of language—spoken or written or heard—with the mental images that have arisen during life with these outward forms. He is quite original in his absolute denial that the third left frontal convolution has anything to do with the function of speech in any of its forms.

Marie's opinion as to the unity of all aphasias seems to be simple and valuable. The child at birth is unable to speak, to understand speech, or to write, yet not aphasic, for we are practically certain

that it has the potentiality to speak, write and understand speech. However, if this child at three is still unable to speak at all or to comprehend any of the forms of speech, then we think of its possibly being mentally defective; in other words, we then assume the presence of the failure of the centers of comprehension. This supposed child would be in the true sense aphasic. Practically speaking, word blindness as a congenital condition may be said to exist in every individual. This condition as a separate entity was first described by Pringle Morgan in 1896, since when the literature on the subject has rapidly increased. Ocular complications are never present, and a word-blind child may be a strong visual in other respects.

It is manifest that aphasia in the young child with undeveloped brain localities has only a superficial similarity to aphasia in the educated adult with some damaged areas or connections. In the adult, the cerebral areas on both sides are developed and usually those on one side damaged. In the defectively developed brain of the congenital aphasic, there is no reason to consider the defect unilateral.

According to Marie, true aphasia is not the inability to utter words, but the inability to understand what is said, or written, or heard, and the disability to represent mental concepts by their accepted vocal or written equivalents. It is not, therefore, the result of the destruction of a center in the old sense of the word, but a disorder of the integrating mechanism of the nervous system (according to Sherrington), a condition of diaschisis (according to von Monakow), or apraxia (according to Liepmann). We now look upon all forms of aphasia as sensory in the sense that this type is associated with mental defect and that the type of speechlessness not associated with impaired comprehension as not constituting true aphasia. Ordinary aphasia is sometimes considered to be the result of a combination of true aphasia with anarthria. Laignel-Lavastine, in determining the existence of aphasia, emphasizes the necessity for eight different forms of tests, viz., spontaneous speech, repeated words, reading aloud, spontaneous writing, writing from copy, writing from dictation, study of comprehension of spoken words, and study of comprehension of printed words.

Among the most characteristic forms of speech disturbance due to lesions of the cerebral cortex, is verbal amnesia, which is clinically quite distinct from word deafness. In the former there is more or less complete loss of memory of the auditory images of speech; in the latter it is merely the power of recalling such images which is absent. It is true that verbal deafness necessarily in-

volves amnesia; but their coexistence is not absolutely inevitable, for verbal amnesia may be present without a trace of word deafness. In verbal amnesia the patient can not recall words, especially names, but upon being given the name he at once recognizes it and may even be able to repeat it, showing that he is not word-deaf to that word, because he recognizes it when he hears it, and that he has not motor aphasia, because he can utter it. Many writers attempt to make out a distinct center for verbal amnesia, but it is probably only a part of sensori-motor aphasia.

An interesting case of word blindness is reported by Laveson. The patient tells her own story. "What is the reason, doctor, that everything in a book or newspaper is illegible to me? Last evening I sent an advertisement to the *Herald* for a waitress, and when the girls came this morning I could not read their references. I then took up the *Herald* and found that I could not read a word in it. At first I supposed that my eyesight had failed, but I could see everything around the room as well as ever, and so also with my crochet work. I then opened the Bible, but could not read a word. What is the matter with me?" This woman never saw a word from then to the time of her death two years later. She had no other disorder of speech and none of vision. She heard every word coming to her ears and could speak as fluently as ever, but no word could reach her consciousness through her eyes.

Lloyd recently presented before the Philadelphia Neurological Society an interesting case of traumatic sensory aphasia, characterized by word deafness and word blindness, without motor aphasia, but with agraphia and astereognosis, with slight anesthesia, in the right hand. The one thing of special interest in this case was the fact that he had no motor aphasia. He could talk a "straight streak" but not correctly. He had a sort of paraphasia, which resembles verbal amnesia, which two conditions are in fact hard to separate.

It is only through the psychomotor reactions that we gain information about the psychosensory processes, and the psychosensory functions are on the other hand involved in all our tests for the psychomotor functions as necessary for the transmission of the test stimulus. Concerning the practical examination and the distinction between the different forms of psychomotor and psychosensory disturbances it must be admitted that the different psychomotor and psychosensory functions are interdependent. As on the lower level, the control of the sensory function is necessary for the perfect execution of motor functions, so are psychosensory functions necessary for the perfect execution of the psychomotor functions. When the deep sensation becomes deficient in tabes

dorsalis, the affected limbs become ataxic. In the same way, sensory aphasia leads to disturbances of speech, paraphasia.

Motor aphasia may present an almost total absence of words or a copious vocabulary wrongly used. Sensory aphasia may present a situation where the patient is able to comprehend ideas already furnished for him, but which he can not voluntarily construct, or he may be able to present ideas which he fails to comprehend when they are presented to him. The more complex and voluntary parts of speech suffer first, the more automatic last.

With aphasics, simple signs, the Abrabic numerals, single letters, and the individual's own name are, as a rule, learned easily and used intelligently, though there are at times difficulties in these. Many persons lose all facility and even forget reading a year or two after leaving school. For example, a word-blind boy, who could do long division well, was unable four years later to manage more than single integers, although then earning good wages on metal work. Thomas in 1904, on the basis of observation in London schools, estimated that one in every 2,000 boys was affected with word-blindness; Warburg in 1908 found this percentage much higher in Cologne school children, fourteen in every 2,000.

Thomas relates how he taught a boy rather word-deaf to say, "The road is almost like a stream." Fifteen minutes later, on being asked to repeat this, he said, "The road is almost like a river." This was taken to mean retention of a visual rather than an auditory image.

In dreams, where one sees papers, books, or notices, it seems impossible to read what is printed on them, as it is jumbled into a mass of syllables and letters like agraphic writing. The letters are all clear enough; they embrace other forms than usual signs, but on attempting to fix them one is like the word-blind boy who said, "I can see the letters all right, but they blur over and swim a little." So that, in dreams where intellectual processes are somewhat overshadowed by emotional, there may be experienced a functional word blindness.

Burr from observation of an aphasic girl, aged 17, picked up as a vagrant by the police, suggests that the "wild children" recorded in the past were probably strayed aphasics, as they showed intelligence and ability above the imbecile and yet were unable to acquire or use language.

Speech has rather often in both ancient and modern times been, as it were, instantaneously acquired by mutes. Herodotus tells of a son of Croesus who had never been known to speak and whose cure had in vain been attempted, who at the siege of Sardis was so

overcome with astonishment and terror at seeing the king, his father, in danger of being slain by a Persian soldier, that he exclaimed aloud, "Oh, man, kill not Croesus." This was his first articulation, but thereafter he retained the faculty of speech to the end of his life. Wigan, the author of the *Duality of the Mind*, had a patient eight years old, sound in intellect but perfectly dumb, and whose family had abandoned all hope of curing him, who, seeing his father fall overboard from a boat on the Thames, cried aloud, "Oh, save him, save him," and from that moment spoke with almost as much ease as his brother. Bastian was consulted about a boy, the son of a prominent lawyer, who had had convulsions in infancy and at five years old had not spoken a single word. He and other physicians consulted about his dumbness could not help him; but before the year's end, after an accident to one of his favorite toys, he suddenly exclaimed, "What a pity." The same words could not be repeated, nor were other words spoken for two weeks, but thereafter he began to speak well and soon became loquacious.

In 1917, Marie and Foix discussed in the literature the aphasias caused by the wounds of war. Their paper is illustrated with diagrams of the conventional kind, but post-mortem findings are wanting. Marie still insists that our commonly observed motor aphasia should be called "anarthria" and that it does not depend on a lesion exclusively located in Broca's convolution, but in a wider area, including the lower third of the ascending frontal convolution and the island of Reil. Moreover, Marie does not deny that the extreme posterior end of the third frontal convolution is included in this area. It is probable that such precise delimitations and such arbitrary changes of names are hardly warranted. As for sensory aphasia, Marie still follows closely the old lines in placing the centers of word deafness and word blindness, respectively, in the temporal gyri and the angular gyrus.

Von Monakow, in illustrating his theory of diaschisis, assigns a different interpretation to those defects of speech which are seen after a lesion and which (he claims) are slight in degree and soon pass off, and those which remain well-marked and permanent. The early symptoms, which are transitory, are due to a lowering of functional activity in a distinct part of the speech mechanism, caused by the upsetting of balance between the several parts of the mechanism, produced by the destruction of one of the integral parts of the lesion. He insists that the nervous system acts as a whole, and so with the speech mechanism. That is, if in a case of motor aphasia Broca's area is destroyed, the independent areas existing in the belief of von Monakow, accord-

ing to the old diagrammatical scheme of localization, also suffer. So a lesion in the motor speech area would produce a depression of function in the visual, auditory, and other speech areas and thus cause the resultant pronounced aphasia. Von Monakow believes with Marie, Grosset, and others that the aphasia is simply a defect of intelligence, as originally held by Trousseau.

It is not absolutely essential to our conception of speech disturbances or voluntary movements that they be localized in either hemisphere alone, and caution should surely be used in adhering strictly to the viewpoint that these special skilled acts, of which speech is one, have their correlating centers almost exclusively in the left hemisphere. In nearly all the reported cases of apraxia with autopsy and in many cases of aphasia with autopsy, lesions are found in both hemispheres. Probably the most sensible view is that the whole cortex is indivisibly associated with the development of the function of speech and its expression, and also with the development of the function of specialized purposeful movement and its performance.

According to Liepmann's researches, 95½ per cent of all individuals are righthanded, and, therefore, their left hemispheres lead in the production of purposeful movements and in speech utterance. Bearing on the point of stock-brainedness—that is, the tendency in families to have the left or the right hemisphere predominating for speech and voluntary movement, as is shown by the right or lefthandedness of such individuals—the work of Kennedy is of interest. He asserts that, while certain individuals of a righthanded stock may be lefthanded, in these the speech center is always in the left hemisphere. He also applies the same rule to individuals of lefthanded stock who are righthanded, the leading hemisphere in these being the right one. He calls on these observations to explain the existence of crossed aphasias—that is, aphasias occurring in righthanded individuals with left hemiplegia and in lefthanded individuals with right hemiplegia.

Osnato reports five cases of Alzheimer's disease, characterized chiefly by aphasia, apraxia, and agnosia. These cases do not confirm the presence of focal and diagrammatic cortical localization areas for speech and voluntary movement. On the other hand, they seem to prove the contention that the function of speech and voluntary movement is an integral part of the development of the functions of the entire brain, and is not capable of being anatomically, physiologically, or psychologically separated into centers.

In conclusion, we might properly summarize by accepting the views of Herrick concerning the functions of the cerebral cortex.

Specific mental acts or faculties are not resident in particular cortical areas, but all conscious processes probably require the discharge of nervous energy throughout extensive regions of the cortex, and the character of the consciousness depends in each case upon the dynamic pattern of this discharge and the sequence of function of its component systems. No cortical area can be properly described as the exclusive center of any particular function. Such centers are merely nodal points in an extremely complex system of neurons which must act as a whole in order to perform any function whatsoever. Their relation to cerebral functions is analogous to that of the railway stations of a big city to traffic, each drawing from the whole city its appropriate share of passengers and freight. Their great clinical value grows out of this segregation of fibers of like functional systems in a narrow space, and not to any mysterious power of generating psychic or any other special forces of their own. The essence of cortical function is correlations, and a cortical center for the performance of a particular function is a physiological absurdity.

RADIUM THERAPY IN GYNECOLOGY

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The question of radium therapy has occupied a prominent position in medical discussion for some time, and in no branch of medicine, excluding dermatology, is it so widely applicable nor has it given such uniformly brilliant results as in gynecology.

Interest in radium has been centered chiefly in its promising possibilities as a cure for cancer. Extended use of it, however, has shown it to possess properties quite as striking in other pathological processes. Certain types of persistent uterine bleeding, due to disturbance of ovarian function, fibroids or metropathies, respond promptly to radium exposure.

Radium has established for itself the right to a leading place in the therapeutic armamentarium of the gynecologist. Types of cases treated with radium:

- 1—Carcinoma of pelvic organs.
- 2—Myoma uteri.
- 3—Functional menorrhagia and metrorrhagia.

TREATMENT OF CARCINOMATA

Success in the treatment of malignant conditions depends upon early recognition. The earlier treatment is instituted, the better the results obtained, either with radium or by surgical means. Carcinoma of the cervix metastasizes so early and so widely that in the great majority of cases the disease is beyond the reach of the surgeon when the patient comes under observation. Extension into the parametrium and pelvic lymphatics takes place early. In certain early cases of carcinoma of the cervix radical operation is still advocated by many surgeons. The most effective method may be said to be in the balance, the pendulum swinging toward radium.

Although a number of cures have been reported in which five years have elapsed since treatment, it is still too early to establish the question of final cures with radium. Time only will decide whether radium alone is advisable. In the light of the knowledge of early and rapid extension and knowledge of the action of radium in advanced cases, with a clinical cure rate of fifteen to twenty-five per cent, the question "Why operate upon early cases of carcinoma of the cervix" may well be in order. From personal experience and from a study of the literature, the writer feels that

the day is not far distant when carcinoma of the cervix will be taken from the domain of surgery. Recassens, reporting on nearly four hundred cases of carcinoma of the cervix treated in the last six years, states that his results with radium have been superior to those obtained by surgery. Dr. J. G. Clark believes that ultimately radium may supplant surgery in early cases, but at present advocates radical operation a few days after radiation, following the plan of Dr. Howard Taylor.

Carcinoma of the fundus uteri, unlike carcinoma of the cervix, does not invade the parametrium until late in the disease and metastasis is later also, therefore it is especially favorable from a surgical standpoint. Radium should be resorted to in those cases showing an operative contra-indication, or where disease is far advanced.

In the treatment of carcinoma of the vagina and vulva, better results can be expected from the use of radium than from surgery. Recurrence may be looked for within a year.

In carcinoma of urethra, bladder and rectum, symptomatic improvement only is gained.

In carcinoma of the breast, unless hopelessly inoperable, a radical removal of the breast followed by radium or X-ray, the X-ray being preferable because a larger area can be radiated to better advantage.

The prophylactic treatment following surgical removal of the growth offers a field in which a great deal may be accomplished.

In the consideration of carcinomata it can be stated that no remedy has ever approached radium in its palliative beneficence.

INDICATIONS IN CARCINOMA OF THE CERVIX

1. As a palliative in the inoperable and recurrent cases.
2. In operable cases as a preliminary to operation or as a prophylactic after operation, or both.
3. In operable cases where there exists an operative contra-indication.

TECHNIQUE OF APPLICATION AND DOSAGE

These vary a great deal, depending upon the amount of radium accessible. In a few institutions, where a large amount of radium is owned, emanation is employed, but the great majority find it necessary to be satisfied with fifty or one hundred mgs. The radium salt used is an insoluble sulphate. The patient is prepared as for a vaginal operation and given light anaesthesia, nitrous oxide and oxygen preferably. A specimen of the suspected tissue is taken for examination. The radium, after being properly

screened and secured, is placed in the cervical canal or crater and held in place with gauze packing. The vagina should be carefully distended with gauze or metal placed to afford protection to bladder and rectum. In those cases presenting lesions of a character that make diagnosis questionable, a specimen should be taken and examined before application of the radium. This is important in young women infected with syphilis, whose primary lesion located on the cervix may simulate carcinoma.

Re-application depends upon dosage employed and conditions found at re-examination.

Close follow-up of these cases is necessary, and an effort should be made to impress upon them the importance of returning at stated intervals, when careful recording of subjective and physical findings is done.

Constitutional reaction to application of radium in the form of vomiting, slight elevation of temperature and vague abdominal pain occurs in a small proportion of cases. Bladder and rectal irritation can be avoided to a great extent if due care is taken in protecting these organs.

Sequelae as recto-vaginal and vesico-vaginal fistulae do occur. There is no doubt but that the percentage of fistulae after radiation is less than in patients untreated or treated by other means.

In relief of symptoms, hemorrhage is found to be more easily controlled than other symptoms, usually diminishing immediately and ceasing within four weeks of time of application. Leucorrhoea gradually lessens, becoming watery in character and less offensive in odor and usually disappears in from five to six weeks. Palliation and abolishing pain are two of its most valuable properties, thereby avoiding the necessity of the use of narcotics in many and permitting discontinuance or reduction of the amount in others.

With the disappearance of symptoms, improvement in general health takes place, and in a few months restoration to nearly normal health. A great burden has been lifted and the patient is again in a position to assume her duties and become a useful member of society.

EFFECT UPON LESION

Within four weeks the lesion becomes altered in character, the mass has contracted and diminished in size, sloughing tissue is disappearing, and gradually healing takes place. In approximately three months the original site of the lesion is nearly normal in appearance, or is seen as a cicatrix. This is the picture of what may be termed a typical result. In advanced cases it may produce no results or possibly hasten the disease process.

MYOMA UTERI

Fibroid tumors of the uterus are among the most common conditions the gynecologist is called upon to treat. The treatment of these tumors, until recent years, has been surgical, with the attendant risk of myomectomy or hysterectomy, which is by no means small.

In properly selected cases, radium has proven safe and efficient, without the dangers of a laparotomy. It is indicated in those cases in which the uterus is circumscribed and not exceeding a four or five months' pregnancy in size; in larger tumors, if a contra-indication to operation exists, such as serious cardiac or renal disease, marked anemia, pulmonary tuberculosis, extreme obesity, etc.

Radium is contra-indicated in pedunculated sub-serous tumors and in myoma of young women that can be removed by myomectomy, and in any case associated with pelvic inflammatory disease.

Control of hemorrhage and shrinkage of tumor can be expected. In large tumors in which excessive loss of blood has produced such a marked degree of anemia that operation can not be considered, control of hemorrhage with radium, effecting an improvement in general health, operation being more favorable at a later date.

The dosage is regulated by existing conditions, age of the patient is the most important governing factor, duration of exposure depending upon whether conservation of the menstrual function or permanent amenorrhoea is desired. The same factor governs in the treatment of the metropathies.

In hemorrhage at the menopause, radium is especially effective.

Menorrhagia or metrorrhagia, not of neoplastic origin, were treated formerly by rest in bed and employment of certain medicinal agents, and if no relief was obtained, these patients were subjected to surgical procedures. In those cases in which a curettage or curettages were not effective, hysterectomy came next in line, be they young women who desired to retain the power of reproduction or not. Radium has answered this question and with no more risk to life than a curettage.

In young women, the dosage may be so regulated that menstruation is not seriously interfered with. In women nearing the menopause, this is not so important and larger doses can be used with less discrimination. Experience has proven that intra-uterine applications of six hundred milligram hours is usually safe in young women, the desired result being achieved without other than a temporary checking of the menstrual flow. Fertility of the woman is not interfered with where amenorrhoea is not

produced. There is considerable difference of opinion in just what manner radium brings about results in these cases. The preponderance of evidence is in favor of changes produced in the endometrium by doses not larger than six hundred milligram hours. Maury's recent experiments in exposing ovaries of rabbits to fifty milligrams of radium for twelve hours, showed no effect on follicles of the ovary. Schmitz thinks that at least twelve hundred milligram hours are necessary to cause degeneration of the follicles.

To rule out malignancy, a careful diagnostic curettage should always be done preliminary to the application of radium.

This communication is based upon an analysis made by the writer of two hundred cases treated with radium at the Woman's Hospital, New York.

A summary of the results is here given:

Carcinoma of the uterus—

Ninety-five cases—eighty-six of the cervix and nine of the fundus.

Carcinoma of the cervix—

Living, fifty-five cases.

Twenty-four are under six months after radiation.

Seven are healed and free of symptoms.

The others are too recent to report.

Twenty-four others are between six and twelve months after radiation and seven between twelve and eighteen months.

Died, thirty-one cases—

Sixteen died less than six months after radiation.

Nine died between six and twelve months after radiation.

Six died between twelve and eighteen months after radiation.

Two deaths from distant metastases, one to the lung and one to the liver.

Another death two months after radiation from pneumonia, probably influenzal.

Symptomatic results—

Sixty-four per cent of those complaining of pain have been relieved.

Three per cent of those complaining of pain—pain was increased.

Hemorrhage and leucorrhoea have been checked in all but two cases.

Recurrence of hemorrhage in six cases after four to six months.

Sequelae—

Only occasionally was bladder and rectal irritation sufficiently severe to demand treatment.

Two fistulae, one vesico-vaginal, one recto-vaginal.

Ultimate results—

Seven cases of advanced carcinoma living and free from symptoms, clinically cured a year or more after radiation.

Carcinoma of the fundus—

Nine cases.

Four cases had complete hysterectomy; one had both pre-operative and post-operative radiation.

All clinically cured except two.

Carcinoma of vagina—

Five cases.

One primary and four recurrent after hysterectomy.

Living, two.

One clinically cured after twelve months and one six months.

Died, three.

One two months and two six months after radiation.

Carcinoma of vulva—

Two cases; both living.

One improved and later showed extension.

One too recent to report.

Carcinoma of breast—

Three cases treated after radical removal.

One died seven months later of extension to mediastinum.

Two free from recurrence after one year.

Carcinoma of urethra and bladder—

Results not so good. Relief of hematuria. Little effect on lesion.

Carcinoma of rectum—

Five cases. Improvement in all noted.

Four living—one six months and three over one year after radiation.

One died after resection of sigmoid from shock of operation.

NON-MALIGNANT CASES

Myoma uteri—

Forty-four cases—fifteen under and twenty-nine over forty years of age.

Control of hemorrhage and reduction in size of tumor in all.

Disappearance of tumor in two.

Menorrhagia and metrorrhagia (under forty years of age)—

Thirty-nine cases.

Control of hemorrhage in all but three cases.

Menopause symptoms—

Severe in three cases which received 2,400 mgm. hour exposure.

Mild in thirteen cases which received 1,500 to 2,100 mgm. hour exposure.

These were cases nearing forty and in which permanent amenorrhoea was desired. Abrupt menopause in these cases does not differ from surgically produced menopause.

Hemorrhage at the menopause—

Eight cases.

Results excellent. 1,200 to 1,800 mgm. hour exposure used.

CONCLUSIONS

In carcinoma of the cervix radium has proven itself—

- (1) The most dependable palliative in advanced cases.
- (2) A reliable adjunct to surgery in the operable cases.
- (3) Capable of relieving pain and prolonging life.

In properly selected cases of myoma uteri it is a strong rival of surgery.

In large tumors requiring operation, it will control hemorrhage and permit delay until there is an improvement in health.

In intractable menorrhagia of young women it has solved a difficult problem.

It may be so applied that the reproductive function is not interfered with.

Mortality and morbidity in gynecological practice has been materially reduced by the use of radium.

Its power to prolong life and restore a certain number of individuals to a useful life makes it an economic factor to the State.

Radium may eventually remove carcinoma of the cervix from the domain of surgery.

A BRIEF REVIEW OF UROLOGY

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In the time allotted me I can touch only briefly upon some of the advancements made in Urology during the past several years. Urology has kept pace in its development with the other branches of medicine. Coincident with the birth of this specialty there came renewed efforts by enthusiasts in this field to solve the difficult problems relating to the kidney. A renewed wide investigation of this long neglected subject was then started by the general medical profession.

In briefly taking up the subjects embraced in Urology I will begin with the one most familiarly encountered. Gonorrhoea continues to play tag with all our efforts to evolve a specific treatment. Warden, of Ann Arbor, made an exhaustive study of the gonococcus, but his efforts to perfect a specific vaccine or extract have met with failure. Vaccines made from many strains of the gonococcus have been of value in the treatment of such complications as gonorrheal rheumatism and ophthalmia, but in acute urethritis seem to have more potency towards harm than good. In hidden chronic gonorrhoeal infection the diagnosis may frequently be made positive by injections of vaccine on several successive days. A condition of low resistance, or negative phase, is produced, during which time the organism may usually be found. It is essential that the vaccine be made from many strains of the organism. The profession has realized that the biological laboratory will be of little assistance in the treatment of gonorrhoea and has extended its efforts in other directions. The earlier claims made by the group of men in The Brady Urological Institute on the value of Acriflavine did not bear fruit. It proved to be less valuable than many of the silver salts. Mercurochrome, likewise, has gotten us no further in the treatment of gonorrhoea. This chemical, however, has proved to have much value in the treatment of superficial infections of the bladder and kidney pelvis. It is the hope of the profession that these men are on the right track and that success will crown their efforts to evolve a specific for gonorrhoea. In a recent article Edward L. Keyes, of New York, criticises the present-day methods of treating gonorrhoea. However, a close inspection of the article shows that his methods differ but little from those long in use. He cautions that the local remedy shall not cause distress and that injections and irri-

gations shall not be used with undue force. He finds no better local measures than urethral injections of 10 per cent Argyrol and irrigations of potassium permanganate. Rest and freedom from physical exertion are essential. Stricture due to gonorrhoea alone is unusual. Distinction is sharply drawn between gonorrhoeal and traumatic stricture; the former yielding to dilatation; the latter not. We are cautioned that during an attack of gonorrhoea the urethral tissues must not be injured by forcible injection or instrumentation. With this caution in mind stricture will seldom result.

Maximilian Stern, of New York, adds an important step in the operation of external urethrotomy. A careful perineal dissection exposes the bulbous urethra. The bulb is retracted and the urethral cicatrix excised. In the manner of Heinecke-Mikuletz the urethra is then closed over a retained rubber catheter. In a number of cases he claims union by first intention.

The treatment of bladder tumors is becoming more and more a source of satisfaction to the profession. Benign papillomata yield readily to the fulguration wire. Probably a majority of bladder tumors are malignant and no doubt all will become malignant in time. In this class of cases radium has been of great value. The combined use of radium and fulguration has yielded the best results. Of more recent date is the use of radium emanations. These emanations are placed within the tumor and left there for long periods. Excellent results have been reported.

The operation for hypertrophy of the prostate gland continues to furnish exciting food for controversy. A few years ago the genito-urinary surgeons were at odds over the respective merits of the perineal and supra-pubic operations. Now it is whether the supra-pubic operation shall be done in one or two stages. Careful pre-operative preparation has led to a great reduction of mortality in prostatectomy cases. Pre-operative preparation means the reduction of urinary infection to a minimum and stabilization of the kidney function. Sudden stoppage of the back-pressure on the kidney by catheter drainage or cystostomy results in a decline of kidney function. It is unnecessary to point out the danger of burdening the patient with the double load of operative shock and sudden lowering of the kidney function. Patients not infrequently die from pre-operative drainage, however established. Study of individual cases with phenolsulphonaphthalein determines their suitability for operation, and also the most favorable time. The most favorable time is when the function has regained the percentage recorded when drainage was established. Sometimes this point is never reached and then the time selected

is when the function is stabilized, and not fluctuating from day to day. The two-stage operation has won favor with a large majority of the profession. It is noteworthy, however, that the one-stage operation is insistently preferred by Squier and some others, Squier conclusively showing that a careful pre-operative catheter drainage gives all the advantages of the first stage, with, of course, none of the disadvantages. Increasing percentages of malignancies of the prostate gland are being reported until now it is claimed that in more than 30 per cent of hypertrophies malignant changes are present.

Hunner, of Baltimore, again calls attention to the role of ureteral stricture in the causation of kidney disorders. Kidney infection and kidney pain of obscure origin must lead us to suspect an abnormal condition of the ureter.

Much has been written during the past several years on the instrumental treatment of ureteral stone. A perfection of cystoscopic technique for this condition has practically obliterated operative measures.

The introduction of phenolsulphonephthalein for the estimation of the function of the kidney has stimulated wide study along new lines. With the assistance of a modern laboratory no one need be long in doubt about the functional capacity of the kidney. A size-up of the excretory capacity and the nitro-retention in the blood gives the picture at once.

Too much praise can not be extended Eisendrath, of Chicago, for his brilliant study of the blood supply of the kidney. He has not only contributed a new chapter to the surgery of this organ, but has written his name down as an anatomist of the first order. His careful dissection of the kidney vessels has revealed not only an astonishingly large number of anomalies but also anomalies of so various and so curious a character that the surgeon is held spell-bound. With the work of Eisendrath in mind we will proceed with more caution and more confidence in the exposure of the kidney.

I wish to mention briefly the experiments of Moore in venereal prophylaxis. Patients were inoculated with chancroidal infection and the lesions treated with calomel ointment. The calomel had no effect and chancroid developed invariably. The experiments were repeated and the wounds washed with soap and water. In no case did the disease develop. Reasoner, some years ago, noted that soap would destroy spirochaetes. To further test the value of soap in prophylaxis, Davis and Schwartz conducted a series of experiments and found that soap, borated, had a marked power for the destruction of gonococci.

A word in conclusion on the treatment of syphilis. It must be intensive and persistent. All authorities are agreed that much treatment must be given and that it be kept up for a long time. Some cases get well quickly and stay well. More, however, resist to the ultimate. Arsphenamine must be given in waves or successive courses over a period of several years, each course consisting of from six to ten injections, according to the clinician's judgment. Conservatives place the number of such courses at from four to six regardless of blood findings. The intervals are occupied with mercurials, tonics and periods of rest. In poisoning by 606 the force of the attack seems to be centered on the liver cells. In this condition all hepatic effort must be minimized, such as withholding fatty foods, etc. A coincident administration of 606 and mercury is condemned. These two drugs have each a powerful effect on the liver tubules and the time of their respective administrations must be carefully selected.

SUMMER BRONCHITIS WITH REPORTS OF FOUR CASES

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During the latter part of the recent (1920) summer and early autumn there have been prevalent in the neighborhood of Washington scattered epidemics of acute respiratory disturbance, consisting of fever lasting two to five days, with cough and evidence of acute infection, and followed by a greater or less degree of prostration. This malady has been designated by some physicians as "summer gripe." It does not differ clinically from the malady that prevails with more or less regularity every winter, and is commonly called gripe, or influenza, though of course the frequency and severity of serious complications is less than what is met with in the colder season.

My attention was first called to these cases in August (1920), while I was on my vacation, by Dr. S. W. Maphis, of Warrenton, Va., who told me that he was being kept very busy by an unusually large number of them. Since returning to Washington September 1st, I have seen a number myself, and heard of many others that answer the same description. Four cases I have observed with sufficient completeness to warrant reporting them. Cases I, II and III are members of the same family.

CASE I.—September 7 I was called to see a boy of fifteen, who had been spending the summer in the neighborhood of Harper's Ferry. After having been perfectly well all summer, he was, on September 5, taken suddenly ill. The day before he had eaten immoderately of bananas, and then taken an automobile drive, getting somewhat chilled. That night he had fever, headache and cough. Temperature rose to 103°, and there was looseness of the bowels. The local physician suspected typhoid, so he was brought home to Washington. I found him with a dry cough and a continued fever, ranging from 99° to 102°, no acceleration of pulse or respiration, and feeling very well. He gave a history of a prolonged attack of bronchitis with obstinate cough three years before.

Examination showed a well-grown, well-nourished boy of bright complexion. The tonsils had been removed, and there was no pharyngeal inflammation, but the soft palate showed a few pinpoint herpetic spots. Heart negative. Harsh, low-pitched breath-

ing heard diffusely over both lungs. Spleen slightly enlarged. No adenitis; no eruption. Tongue coated, with bright red edges.

Blood.—Leucocytes 13,500; culture sterile.

Stool.—Negative on direct examination; culture gave no pathogenic organisms.

September 8-9.—A few small red spots appeared on abdomen and chest, but were not characteristic of typhoid, and quickly disappeared. The spleen had returned to normal size.

September 12.—Cough persists, but is less frequent, more violent, assuming a paroxysmal type. There had been no expectoration at any time. The signs of coarse bronchitis have diminished, and moist medium rales have appeared over the lower left lobe. These rales were heard more markedly and constantly in the paravertebral space at the level of the inferior angle of the scapula. Subsiding elsewhere, they persisted here throughout the period of observation.

From now on the improvement was steady. Irregular sweats accompanied the subsidence of the fever. Otherwise the patient felt well, and had a ravenous appetite. Except for cough and persistence of rales, he seemed well. Last temperature above normal was September 21. Iodides failed to produce any expectoration.

X-ray of chest by Dr. Christie. "Numerous calcified nodules at both hila, and some fibrosis in the upper lobe of the right lung. The appearance is that of an obsolete process. There is no evidence of the presence of active disease."

After being comparatively free from cough for two days and a night, on going to bed the night of September 25, he was seized with a violent and prolonged fit of coughing, which lasted off and on for several hours. It terminated by raising a small mass of yellowish white sputum, and thereafter he was relieved. The specimen was not saved, and there was no more sputum. October 1 he left for the country, and my period of observation ended.

CASE II.—Male, aged 50 years; father of Case I. Acute onset September 21, with chilliness, headache, general malaise, muscular soreness and fever. Soon developed harassing cough. Temperature reached 102°.

Examination showed an old aortic atheroma, acute diffuse bronchitis, plus impaired resonance and medium moist rales in upper left lobe. Sputum muco-purulent, and tinged with blood. Culture showed streptococcus hemolyticus and viridans. Case resolved promptly after three days of continued fever, resolution being accompanied by profuse sweats. Able to leave town for convalescence October 1.

CASE III.—Sister of Case I. Taken ill at the same time as her father, and in the same way; that is, with headache, fever, cough, and muscular soreness. Examination showed a simple coarse bronchitis. Fever lasted 36 hours, and the cough a day longer. No expectoration. Prompt recovery.

CASE IV.—A lady of 73 years, but ruddy, active, and vigorous. Traveled by rail September 21 from New York to Washington, and on the following day was abruptly taken with violent headache and dry cough. By evening the temperature was 102°. The headache was increased, the nasal mucosa congested; the cough was somewhat relieved by heroin, which had been given on the morning visit. Examination showed a simple bronchitis of the large tube variety. There was little or no expectoration at first. The fever lasted two days, and resolved with profuse sweating. Marked prostration followed. The patient was imprudent about resuming her activities, and her cough returned with pronounced weakness. October 3 a small amount of pinkish sputum was obtained, which showed on culture a streptococcus hemolyticus.

Comment.—Case I presents certain features which require explanation. How are we to explain the slow resolution, as shown by the persistence of the cough and rales? How are we to account for the slow pulse in a febrile case?

A consideration of the pathological probabilities points, I believe, to a solution of these questions. This boy had a primary diffuse bronchitis, and a secondary congestion of the lower left lobe, radiating from the hilum. In the X-ray plates there is noted a particularly dense infiltration of the hilum glands on the left side. One cluster suggests a softening center, but this can not be positively asserted. I regard this lesion as a bronchial adenitis, acute in type, and secondary to the infection of the bronchial mucosa. This would account for the paroxysmal type of cough, and for the hyperemia in the adjacent lung tissue, which in turn would account for the rales. In the influenza epidemic of 1918, by means of the bedside X-ray, we repeatedly saw this sequence of pathological progress, *i. e.*, bronchitis, adenitis, and pulmonary congestion, the latter spreading in a fan-shaped fashion from the hilum, and later broncho-pneumonia developing in the congested area. Clinical and autopsy findings supported this observation.

An interesting point, too, is that we seem to have had in this case an opportunity of observing the active process which produces the hilum fibrosis, which is so frequently seen in the X-ray study of adult chests.

This boy's pulse, during the early stage of his illness, when his

fever was at its height, ranged from 58 to 70 per minute. Later the rate increased to normal, and after cough, or other exertion, ran 90 to 100. A possible explanation of this phenomenon is that the rate may have been diminished by inhibition, the cardiac branch of the pneumogastric nerve being stimulated by the proximity of an inflammatory lesion in its course. There is good evidence to show that irritation of other filaments of the pneumogastric nerve are accompanied by slowing of the heart.

October 25, 1916, I presented to the Medical Society of the District of Columbia a report of 22 cases studied in the epidemic of so-called grippe which prevailed in the winter of 1915-16, showing that the etiological factor in this epidemic was the hemolytic streptococcus, which organism was found either alone or associated with other organisms in every case. I therein stated the following hypothesis:

"Streptococci are universally prevalent, and under ordinary conditions of health do not appear to be virulent. Healthy skin and mucous membrane tolerate their presence well. Under certain conditions they give rise to virulent acute conditions, and to most persistent chronic ones. Whether this is due to some acquired property of the bacterium, or to sensitization on the part of the host, is not yet determined. Probably both factors take part. It is entirely possible and seems not improbable that the seasonal epidemics of what we call grippe are due to a sensitization of the human organism to bacteria that are always present, but usually innocuous."

Further, we suggested as contributing to this sensitization, artificial heat, crowding and reduced ventilation, irregularity of diet, fatigue, abrupt climatic changes.

Since the presentation of that paper a large amount of data on streptococci has accumulated. It goes to show that these organisms are responsible for:

- a. A great majority of the acute infections of the upper respiratory tract and tonsils, including their complications and sequelae.
- b. Most of the chronic focal infections of the tonsils, teeth, and sinuses.
- c. Many chronic infections of the gall bladder, appendix, and prostate.
- d. They probably have a rôle in the production of gastric and duodenal ulcer.

Its virulence varies in different individuals, and in the same individual at different times, so that we have all grades of pathological severity, from a rapidly fatal septicemia to processes that rival in chronicity the manifestations of tubercle. Its prevalence

is universal, and it is evident that there are periods of intensification, both of its prevalence and virulence.

I know of no statistics that show the mortality and morbidity arising from infection by the streptococcus. I am sure it causes more illness, and I should not be surprised to learn that it causes more deaths, than does the tubercle bacillus. I do not advocate the foundation of a National Antistreptococcus Association, but I do wish to do my part in directing the attention of our profession to the importance of these bacteria as a cause of human disease and to urge both a more widespread and a more concentrated study of this subject.

BASAL METABOLISM

E. CLARENCE RICE, M.D.

By some the subject of basal metabolism, or clinical calorimetry, is not entirely understood. If this paper can give those who hear it a better idea as to the meaning of the term, the methods of determining the basal metabolic rate, and its practical applications, its purpose will have been accomplished.

By the term *basal metabolism* of an organism is meant the minimal heat production of that organism, measured from twelve to eighteen hours after the ingestion of food and with the organism at complete muscular rest, for at least thirty minutes prior to the beginning of the test.

It is to laboratory workers, among them being Lusk, Eugene, DuBois, Delafield DeBois, Benedict and Means that calorimetry has been raised from the experimental to a practical level and placed in the hands of clinical laboratory workers as a valuable aid in diagnosis and the regulation of treatment.

Calorimetry, or the measurement of heat given off by the body, was originally made in room calorimeters, such as the one at Bellevue Hospital, in which the actual amount of heat given off was measured. This is direct calorimetry and is impractical for clinical work, due to the length of time required for a determination and to the large amount of labor required by a number of workers. The measurement of the heat can be estimated by calculating the gaseous exchange through the lungs, viz., the amount of oxygen consumed and the amount of carbon dioxide given off in a given period of time. This is indirect calorimetry.

In indirect calorimetry the oxygen consumption and the carbon dioxide elimination is determined and from this the respiratory quotient, the ratio of carbon dioxide given off to oxygen used, is known. The heat production is calculated on the basis of oxygen consumption and, knowing the amount of oxygen used, its caloric value is determined from the respiratory quotient; the higher the respiratory quotient, the higher the caloric value of oxygen.

Indirect calorimeters are of two types, one the Tissot type, in which the patient inspires the air of the room and expires into a gasometer, a flutter valve separating the expired and inspired air. The gasometer is calibrated so as to measure the volume of expired air. The gas collected is analyzed as to its oxygen and carbon dioxide content in the Haldane apparatus.

Knowing the volume of expired air, the length of the test and the difference between the oxygen and carbon dioxide contents

of the expired air, the oxygen and carbon dioxide elimination can be calculated.

In the other type of indirect calorimeter the patient breathes into a closed system in which the air circulates through various absorbents which remove the carbon dioxide.

At present we are using two instruments of this type, viz., the Benedict Respiration Apparatus and the Jones Metabolimeter, with satisfactory results. The first named is a stationary type of apparatus; the other is portable. In both of these the subjects breathe pure oxygen and the time taken to consume a given quantity is measured and from this the oxygen consumption per minute is determined. An average respiratory quotient, .82, is taken, which does away with carbon dioxide determinations. For clinical purposes this is sufficiently accurate. With the Benedict instrument the volume of oxygen used must be corrected for temperature, barometric pressure and aqueous tension. With the Jones apparatus no correction is necessary.

Inasmuch as heat production is proportional to surface area, the results are expressed in calories per square meter of body surface. Knowing the weight and the height, the surface area can readily be determined from the chart devised by DuBois based on his formula as experimentally determined.

The heat production varies with age and sex, the normals for the various ages having been determined. The normal individual will not vary more or less than 10 per cent from the figures given.

Usually the heat regulation mechanism is able to maintain a normal temperature in all diseases, except the febrile diseases. The thermometer is not able to detect the various changes in heat production in diseases such as hyper-thyroidism and pituitary disturbances. It is in such conditions that the determination of the basal metabolic rate is of value.

Briefly, the conditions giving rise to increased basal metabolic rate are hyper-thyroidism and hyper-pituitarism; those giving low rates are hypo-thyroidism and hypo-pituitarism.

A slightly increased rate may be obtained in essential hypertension, pernicious anaemia, leucaemia and diabetes.

According to Boothby, ruling out acromegaly and fevers, 95 per cent of the cases with high basal rates are either exophthalmic goitre or thyroid adenoma.

With regard to the practical application of the basal metabolic rate, Tierney, of St. Louis, states that this procedure is becoming an essential part of diagnostic medicine. He believes that the examination will show many of the polyglandular syndromes to be uniglandular in character, to the extent that a single gland greatly

predominates in determining the clinical picture and that it is particularly useful in recognizing the exact stage of a disease, as in acromegaly, where it is important to know whether the patient is in the active (high rate) or in the passive (low rate) stage, or the hypo- rather than the hyper-pituitary stage.

He also makes comparison between the blood sugar estimation and sugar tolerance and along with other observers places the basal metabolic rate determination far ahead of the sugar tolerance determinations in value. He emphasizes the method as a reliable index as to the regulation of treatment in appropriate cases.

Eugene DuBois and J. H. Means emphasize the value of the test in the diagnosis of possible thyroid conditions, particularly those with mild symptoms.

While this method is important in diagnosis, it is of equal value as a guide to therapy. In hyper-thyroidism it is of value in determining the type of remedial measures to be used. A high rate showing marked toxicity would preclude the radical removing of a portion of the gland until the rate had been lowered either by X-ray therapy and rest or by ligation of the arteries. In the same way the rate is of value in following up a case following thyroidectomy. In noting whether the patient falls in the hypo-class and needs glandular therapy, the test will determine the size of dose to be used.

Usually a rate of 50 per cent above normal in hyper-thyroidism makes a poor surgical risk, and the surgeon who does not take advantage of this method is doing himself and patient a serious injustice.

It should not be believed, as one instrument maker would give the impression, that the determination of the basal metabolic rate is almost as simple as determining the blood pressure, for this test must be done with the utmost care to eliminate all possible sources of error and to make the necessary corrections which certain individuals state are not necessary. If these conditions which make for accuracy are not fulfilled, this valuable aid will fall into disrepute. The determination of the basal metabolic rate should not be looked upon as a short cut to diagnosis, and the physician should exhaust every other means at his disposal in order that information obtained from this examination will not be improperly interpreted.

PRESIDENTIAL ADDRESS

Some Relations of Chemistry and Medicine

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It has long been my impression that progress in medicine would be much more rapid if physicians knew more practical chemistry and chemists knew more medicine. It is with a view to stimulating thought in that direction that I take the liberty of presenting this subject.

It is of extreme interest to note the intimate relation that has existed between medicine and chemistry from the earliest times.

Alchemy is said to have two origins, and you may take your choice; one from the Arabic, thought to have come originally from a Greek word meaning "things melted and poured out"; another and more probable origin of the word is that it came from the Arabic definite article *al* and *Khem*, meaning black land, so named from the color of the Egyptian soil; therefore, the art of the black country or "Black Art."

The date of the birth of alchemy is probably earlier than that usually assigned to the creation of Adam. Hermes Trismegistus is said to have been the author of a series of early Egyptian books, including six of Ptolemy or Medical Science. He was held in such high esteem by the alchemists that chemical writings were called "hermetic." This in turn gave rise to the phrase "hermetically sealed" which is still used to indicate the closing of a vessel or container by fusion in the way used by chemical manipulators of that time.

Ebers discovered an important papyrus in a terra cotta vessel between the legs of a mummy among some ruins in the vicinity of the pyramid of Sokara at Memphis. This papyrus was a copy of one of the six medical science books of Hermes, and Brown in his History of Chemistry says that the book dates from 1550 B. C., almost from the time of Moses. Indeed, he suggests that another copy of the same work was studied by Moses, for, having been reared at court, he would as a matter of course be educated in the temple. The following is quoted from Brown's History of Chemistry:

"This Papyrus Ebers is a very curious book, full of allusions to animal, vegetable and mineral products and their uses in medicine. It is, in fact, a text-book of *Materia Medica*. The names of the substances mentioned in it are

not fully understood, but if a medical man resident in Egypt were to establish friendly relations with the Copts and learn the names given by them to natural objects and products, he would, in all probability, be able even at this date to identify many of those ancient medicines. Honey figures as frequently in this treatise as it did in the British Pharmacopoeia down to the last generation, while sugar and other things that we deem of modern manufacture were also employed at that ancient date. The book directs the medical attendant to use certain incantations and formulae in administering the dose, and directs him to invoke the aid of the god. Similar incantations and invocations were common in more recent times, and in our own day an English doctor invokes Jupiter by using his symbol every time he writes a prescription."

Theophrastus (371 B. C.) wrote five books on *materia medica*, describing all of the substances then used in medicine.

Galen (130 A. D.), who was physician to Marcus Aurelius in Rome, wrote books on the medical properties of substances, but omitted chemical properties and the chemical action of medicines. His medical theory assumed that the four grades of properties corresponding to the four elements of Aristotle when mixed in proper proportion constituted health, but in improper proportions constituted sickness. This sickness was to be remedied by medicine supplying the property opposite the abnormal one in the patient.

In a manuscript of the 8th century the word *vitriol* first appears and in one of the 12th century the term *alcohol* is first noted.

Albertus Magnus (1193 or 1206), a theologian, physician, astronomer and alchemist, used the term *affinity* to designate the cause of the combination of sulphur with silver and other metals. The sulphate of iron he named *vitriol*.

Arnold of Villanova (1235) had a great reputation as a physician and introduced the external application of compounds of mercury. With others he believed a solution of gold the most perfect medicine, calling it *aurum potabile*, deeming health and gold both perfect. This drinkable gold was a necessary constituent of the elixir of life, and the belief of its seekers was that it would cure all diseases.

Paracelsus (1493) was an alchemist, astrologer and physician. He pronounced the dictum that: "The object of chemistry is not to make gold, but to prepare medicines." At that time Paracelsus had the conception that the four principal supports of medicine were chemistry, philosophy, astronomy and virtue. At least one of these, viz., chemistry, continues to be a substantial part of the basis of scientific medicine. He was a man of some genius, but vainglorious and self-seeking, a quack, who did not understand

the nature of chemical science and did not, therefore, undertake any regular or successful investigation. He adopted the alchemical doctrine from old authors—that everything consisted of three elements, viz., mercury, sulphur and salt, but he is accredited with having first used the word “*alcahest*,” to indicate a universal solvent, much sought after at the time.

Paracelsus is, however, entitled to great credit for having brought about an overthrow of the ideas of the ancients and even of the more recent alchemists and directing the thought in chemistry along the lines of amelioration of disease rather than the making of gold. He used preparations of antimony, mercury, lead, iron, blue vitriol and, externally, arsenic. He sought to discover the active principles of various drugs and concentrate them in essences, extracts and various mixtures. His writings are full of the mystic, claiming that there is in the stomach a demon named *Archaeus*, who presides over the chemical operations taking place there, “changing bread into blood and separating the poisonous from the nutritive.” He started the school of chemical physicians or *Iatrochemists*. Paracelsus and his followers—Willis, Von Helmont and Sylvius—were far ahead of their time in that chemistry had not progressed sufficiently to enable them to explain, as they desired, many of the vital phenomena. Because of this lack of development the dreams of these men were not realized and the school fell by the wayside, to be revived to a material degree in later years as the better understanding of chemical reactions and processes in plant and animal life paved the way for a clearer insight into the conditions there obtaining and the influence of such conditions on the actions of drugs. Medical science today is realizing more fully that in chemistry lies one of its most promising fields of progress.

We need only to review the more familiar phases of many of the subjects taught in the medical schools to realize the dependence of medicine and surgery on chemistry.

In Physiology, for example, chemical reactions result from the performance of many of the functions, while in many others chemical stimuli bring about the action. Physiology and physiological chemistry are inseparable and an understanding of one is essential to a comprehension of the other. One of the theories of the transmission of the nerve impulse is the migration of ions.

Bacteriology is largely a biochemical study, the preparation of culture media, staining properties of the organisms, and the growth of the bacteria on the various nutritive materials all constitute chemical processes. Especially is chemistry now emphasized in the adjustment of the hydrogen ion concentration of

media, and organisms are identified, aside from their morphology, by the effect their growth has on sugars and action on indicators. Indeed, Avery and Cullen have differentiated between human and bovine types of streptococcus hemolyticus by the fact that the hydrogen ion concentration limit of one is lower than that of the other.

In Pathology we need only to refer to the work of Wells on Chemical Pathology, a book of 616 pages, widely accepted and used by pathologists and chemists, to feel that chemistry plays no small part in that subject.

In Surgery, not only are we indebted to a high development in the manufacture of steel for suitable instruments and apparatus, but anesthetics, sutures and antiseptics have been perfected largely in the realm of chemistry. Dakin's solution, found so efficient under proper technique, in the treatment of wounds, is dependent upon chemical processes for its manufacture, and upon delicate chemical adjustments for the maintenance of its efficiency. We are all more or less familiar with the researches of Pasteur, a chemist whose work furnished the impulse and means for the start in the development of aseptic and antiseptic surgery. The discovery of 606 or Salvarsan by Ehrlich was the outcome of a biochemical study.

Great strides have recently been made in diagnosis and treatment of internal diseases by means of a more detailed study of the constituents of blood and urine. In diabetes the determination of the blood sugar has aided materially in the management of the case. The determination of non-protein nitrogen of the blood, with its partition into urea nitrogen, uric acid nitrogen, creatin, creatinin, amino-acids, etc., has enabled the physician not only to treat with better results patients suffering from nephritis, but to give a more definite and accurate statement as to the patient's chances for life. Cf. work of Myers, Post-Graduate Hospital, N. Y., on creatinin.

A more recent help in internal medicine is the determination of basal metabolism in diseases of the type of hyper-thyroidism and hypo-thyroidism, with which we, most of us, are somewhat familiar.

The phenolsulphonephthalein test for kidney function is essentially a chemical test, as are also analyses of gastric contents, and the various analyses of urine, both routine and special.

McClendon, Assistant Professor of Physiology, University of Minnesota (1917), published a volume on the Physical Chemistry of Vital Phenomena. A profound work.

Stewart in his Stereo-Chemistry has an appendix of eleven pages on the relations of stereochemistry to physiology.

Perhaps the most promising phase of the relation of chemistry to medicine and to me quite the most interesting, is in *materia medica* and therapeutics, viz., physiological action and chemical constitution.

As one evidence of this realization it may be stated that the subject of therapeutics is taught in certain medical schools on the basis of a chemical classification of drugs.

Munroe in 1906 urged upon the medical profession the desirability and necessity of a more extended study of the intimate relationship between the sciences of chemistry and medicine.

Keane in 1910 delivered a Hurter Memorial Lecture before the Liverpool section of the Society of Chemical Industry which recorded considerable research work on the following groups of drugs:

- I. The Antipyretics derived from p-aminophenol.
- II. The Hypnotics derived from Malonyl Urea.
- III. The Local Anesthetics derived from Cocaine and allied compounds.

The observation was made by Schmiedeberg in 1878 that aniline and its derivatives are oxidized, on passing through the human system, to p-aminophenol, which is less toxic than aniline. Keane states that this change is in accordance with the general action of the body—to convert drugs, regarded as substances foreign or poisonous to animal tissues, into inactive or less poisonous products; also that the formation of substances of lessened toxicity by the metabolic changes in the animal body has been an excellent guide in the synthetic preparation of drugs.

Keane essayed to do a thing which he states Hurter did not attempt, and that was to extend his studies into the field of carbon compounds which Wöhler is reported to have described in a letter written to Berzelius as "the tropical forest primeval, full of the strangest growths, an endless and pathless thicket, in which a man may well dread to wander."

The guide mentioned was made use of in the preparation of substances related to aniline, which retained their antipyretic and antineuralgic properties, but were sufficiently free from poisonous effects to be of practical value.

A résumé of Keane's work on the antipyretic action of 1 : 4 aminophenol derivatives given in the lecture cited is as follows:

TABLE I
ANTIPYRETIC ACTION OF 1 : 4 AMINOPHENOL DERIVATIVES

No.	Formula	Nomenclature	Antipyretic Action	Toxicity
1	$\begin{array}{c} \text{OH} \\ \text{C}_6\text{H}_4 \\ \text{NH}_2 \end{array}$	Aminophenol	Marked	Toxic
2	$\begin{array}{c} \text{OC}_2\text{H}_5 \\ \text{C}_6\text{H}_4 \\ \text{NH}_2 \end{array}$	Ethoxyaminophenol (Phenetidine)	Similar to 1	Less than 1
3	$\begin{array}{c} \text{OH} \\ \text{C}_6\text{H}_4 \\ \text{NHCOCCH}_3 \end{array}$	Acetaminophenol	Similar to 1	Less than 1
4	$\begin{array}{c} \text{OCH}_3 \\ \text{C}_6\text{H}_4 \\ \text{NHCOCCH}_3 \end{array}$	Methoxyacetamino- phenol (Methacetine)	Great than 1 and 5	Less than 3
5	$\begin{array}{c} \text{OC}_2\text{H}_5 \\ \text{C}_6\text{H}_4 \\ \text{NHCOCCH}_3 \end{array}$	Ethoxyacetamino- phenol (Phenacetine)	Less than 4	Less than 4
6	$\begin{array}{c} \text{OC}_3\text{H}_7 \\ \text{C}_6\text{H}_4 \\ \text{NHCOCCH}_3 \end{array}$	Propio-oxyacetamino- phenol	Less than 5	Greater than 4
7	$\begin{array}{c} \text{OC}_2\text{H}_5 \\ \text{C}_6\text{H}_4 \\ \text{NCH}_3 \\ \text{COCCH}_3 \end{array}$	Methyl phenacetine	Less than 5	Greater than 5
8	$\begin{array}{c} \text{OC}_2\text{H}_5 \\ \text{C}_6\text{H}_4 \\ \text{NC}_2\text{H}_5 \\ \text{COCCH}_3 \end{array}$	Ethyl phenacetine	Less than 5	Less than 7
9	$\begin{array}{c} \text{OH} \\ \text{C}_6\text{H}_4 \\ \text{NC}_2\text{H}_5 \\ \text{COCCH}_3 \end{array}$	Ethyl acetamino- phenol	Nil	Nil
10	$\begin{array}{c} \text{OCOCH}_3 \\ \text{C}_6\text{H}_4 \\ \text{NC}_2\text{H}_5 \\ \text{COCCH}_3 \end{array}$	O. acetyl ethylacet- aminophenol	Less than 8	Greater than 8
11	$\begin{array}{c} \text{COOH} \\ \text{OC}_2\text{H}_5 \\ \text{C}_6\text{H}_4 \\ \text{NHCOCCH}_3 \end{array}$	Phenacetine carboxylic acid	Nil	Nil
12	$\begin{array}{c} \text{OC}_2\text{H}_5 \\ \text{C}_6\text{H}_4 \\ \text{NHCOCCH}_3\text{COOH} \\ \text{OC}_2\text{H}_5 \end{array}$	Phenacetine a-car- boxylic acid	Nil	Nil

No.	Formula	Nomenclature	Antipyretic Action	Toxicity
13	C_6H_5 $NHCOCH_2NH_2$	α -Amino phenacetine (Phenocoll)	Rapid	Marked
14	C_6H_5 OC_2H_5 $NHCOCHOHCH_3$	Lactyl phenetidine (Lactophenine)	Less than 5	Greater than 5
15	C_6H_5 OC_2H_5 $NHCOC_6H_4OH$	Salicyl phenetidine	Slight	Slight
16	C_6H_5 $OCOC_6H_4OH$ $NHCOCH_3$	Salicyl acetamino-phenol (Salophen)	Slight	Slight
17	C_6H_5 OC_2H_5 $N=CHC_6H_4OH$	Salicyl phenetidine (Malakin)	Slow	Slight
18	C_6H_5 OH (1) $NHCOCH_3$ (4) $COOH$ (2)	Acetamino salicylic acid	Nil	Nil

From the data set forth in this table, the conclusion was drawn by Keane that of the compounds studied, Phenacetine, No. 5, was the most suitable for medical use, with the comment that para-aminophenol has marked antipyretic effect, but retains too much of the hemolytic action of aniline to be of practical use, while the replacement of the hydrogen of the hydroxyl group by an alkyl (phenetidine, No. 2) reduces the toxicity, as does also the replacement of the amino-hydrogen by an acid radical. Those compounds possess strong antipyretic and antineuralgic effects, but are still too poisonous. When the two groups are replaced simultaneously the toxicity is sufficiently reduced to render the compounds of practical value therapeutically.

The results of his studies on alcohol are shown in the following table:

TABLE II
 HYPNOTIC ACTION OF ALCOHOLS

No.	Formula	Nomenclature	Hypnotic Action	Dose in Grams
<i>Primary Alcohols</i>				
1	CH_3OH	Methyl alcohol	Nil	6-12
2	$\text{C}_2\text{H}_5\text{OH}$	Ethyl alcohol	Sleep	12
3	$\text{C}_3\text{H}_7\text{OH}$	Propyl alcohol	Sleep after 5 minutes	12
4	$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CHCH}_2\text{CH}_2\text{OH} \\ | \\ \text{CH}_3 \end{array}$	Iso-amyl alcohol	Drowsiness	2
<i>Secondary Alcohols</i>				
5	$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CHOH} \\ | \\ \text{CH}_3 \end{array}$	Dimethyl carbinol	Drowsiness	2
6	$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CHOH} \\ | \\ \text{C}_2\text{H}_5 \end{array}$	Ethylmethyl carbinol	Drowsiness	2
7	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{CHOH} \\ | \\ \text{C}_2\text{H}_5 \end{array}$	Diethyl carbinol	Sleep	2
<i>Tertiary Alcohols</i>				
8	$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_2\text{COH} \\ | \\ \text{CH}_3 \end{array}$	Trimethyl carbinol	Sleep	4
9	$\begin{array}{c} \text{CH}_3 \\ | \\ \text{CH}_2\text{COH} \\ | \\ \text{C}_2\text{H}_5 \end{array}$	Dimethyl ethyl carbinol (Amylene hydrate)	Sleep 8-9 hours	2
10	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C}_2\text{H}_5\text{COH} \\ | \\ \text{C}_2\text{H}_5 \end{array}$	Triethyl carbinol	Sleep 10-12 hours	1

Attention is invited to the action of the ethyl group in several drugs that are employed, notably ethyl alcohol, ether, sulphonal, trional, tetronal and veronal.

The symptoms of intoxication by means of alcohol, $\text{C}_2\text{H}_5\text{OH}$, where but one ethyl group is present, are more or less familiar, such as the period of excitement, flushed face, staggering gait, foolish speech and profound stupor, followed by nausea and vomiting.

The symptoms of intoxication or anesthesia by ether, $\text{C}_2\text{H}_5\text{-O-C}_2\text{H}_5$, where two ethyl groups are present, are similar in kind, but different in degree, particularly in the depth of the

stupor, which amounts to insensibility to pain. The nausea is also frequently more pronounced after etherization.

In sulphonal $\begin{array}{c} \text{CH}_3 \\ | \\ \text{C} \\ | \\ \text{CH}_3 \end{array} \text{SC}_2\text{H}_5\text{O}_2$, two ethyl groups are present in a molecule much larger and more complicated than those of ethyl alcohol and ether, and the action here appears to be modified somewhat. The main action in the dosage commonly used is the production of a deep, nearly natural sleep lasting several hours without the aftermath of nausea.

Trional, $\begin{array}{c} \text{CH}_3 \\ | \\ \text{C} \\ | \\ \text{C}_2\text{H}_5 \end{array} \text{SC}_2\text{H}_5\text{O}_2$ contains three ethyl groups and gives sleep that is deeper than that produced by sulphonal and comes on more promptly.

Tetronal $\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{C}_2\text{H}_5 \end{array} \text{SC}_2\text{H}_5\text{O}_2$ contains four ethyl groups and its action by analogy should be more prompt and pronounced than that of either the sulphonal or trional, but for some unexplained reason, possibly a lower solubility, it is not as active as sulphonal or trional.

In studying another group of hypnotics, viz., the malonyl derivatives, to which veronal ($\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \end{array} \text{CO-NH}$ CO diethyl malonyl urea) belongs, Keane reaches the conclusion that the hypnotic action is due in a large measure to the presence of one or more ethyl radicals, being aided by the urea radical. His results are set forth in the following table:

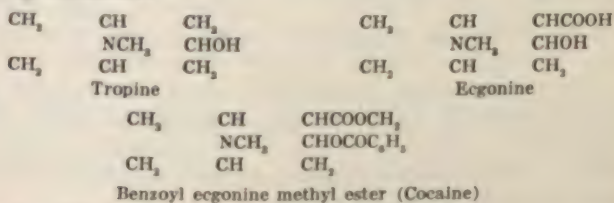
TABLE III
HYPNOTIC ACTION OF MALONYL UREA DERIVATIVES

No.	Formula	Nomenclature	Time required to produce sleep			Dose in Grams
			Hours	Duration of sleep in Hours		
1	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{COOH} \end{array}$	Diethyl malonic acid	No action			5
	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{COOH} \end{array}$					
2	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{CONH}_2 \end{array}$	Diethyl malonic amide	No action			4-5
	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{CONH}_2 \end{array}$					
3	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{H} \end{array}$	Diethyl-acetyl urea	1	+ 9		3
	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{CONHCONH}_2 \end{array}$					
4	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{COOH} \end{array}$	Diethyl malonic ureide	No action			3
	$\begin{array}{c} \text{C}_2\text{H}_5 \\ | \\ \text{C} \\ | \\ \text{CONHCONH}_2 \end{array}$					

No.	Formula			Nomenclature	Time required to produce sleep		Duration of sleep Hours	Dose in Grams
					Hours			
5	CH ₃	CO-NH	CO	Dimethyl malonyl urea	No action			3
	CH ₃	CO-NH						
6	CH ₃	CO-NH	CO	Methyl-ethyl malonyl urea	1	+ 8		3
	C ₂ H ₅	CO-NH						
7	H	CO-NH	CO	Mono-ethyl malonyl urea	No action			3-4
	C ₂ H ₅	CO-NH						
8	CH ₃	CO-NH	CO	Methyl-propyl malonyl urea	1	2½		1
	C ₃ H ₇	CO-NH						
9	C ₂ H ₅	CO-NH	CO	Diethyl malonyl urea (Veronal)	½	26½		1.5
	C ₃ H ₇	CO-NH						
10	C ₂ H ₅	CO-NH	CO	Ethyl-propyl malonyl urea	1	24		1
	C ₃ H ₇	CO-NH						
11	C ₃ H ₇	CO-NH	CO	Dipropyl malonyl urea (Proponal)	½	50½		1
	C ₃ H ₇	CO-NH						
12	C ₄ H ₉	CO-NH	CO	Di-iso-butyl malonyl urea	1	8		1
	C ₄ H ₉	CO-NH						
13	C ₅ H ₁₁	CO-NH	CO	Di-isoamyl malonyl urea	Slight action			3
	C ₅ H ₁₁	CO-NH						
14	C ₇ H ₇	CO-NH	CO	Dibenzyl malonyl urea	No action			3
	C ₇ H ₇	CO-NH						
15	C ₂ H ₅	CO-N-CH ₃	CO	N-methyldiethyl malonyl urea	1/8	48 Then fatal		1
	C ₃ H ₇	CO-NH						
16	C ₃ H ₇	CO-NH	C=NH	Dipropyl malonyl guanidine	No action			3
	C ₃ H ₇	CO-NH						
17	C ₂ H ₅	CO-NH	CS	Diethyl-malonyl thiourea	1	48 Then fatal		1
	C ₂ H ₅	CO-NH						

No.	Formula	Nomenclature	Time required to produce sleep	Duration of sleep	Dose in Grams
			Hours	Hours	Grams
18	$\text{C}_2\text{H}_5 \quad \text{CO-NH}$	CHC_6H_5 Diethyl-benzal malonamide	No action		
	$\text{C}_2\text{H}_5 \quad \text{C}$				
19	$\text{C}_2\text{H}_5 \quad \text{CO-NH}$	$\text{CH=CHC}_6\text{H}_5$ Diethyl cinnamyl malonamide	No action		
	$\text{C}_2\text{H}_5 \quad \text{C}$				

The same author draws the conclusion, from his studies of the local anesthetics derived from cocaine and allied compounds, that the main action of those drugs is associated with the presence of the benzoyl group. The structure of cocaine is shown by the following formulae:



Attention is invited in this connection to the investigation of benzyl benzoate as an antispasmodic by Macht (1919), who concludes that the benzyl esters, benzyl acetate and benzyl benzoate, relax the tonus or spasm and inhibit the contractions partially or completely, depending on the dosage, of all smooth muscle organs. It is believed by the present writer that the action of the benzoyl radical here is analogous to its action as a local anesthetic.

The studies of Keane appear to be excellent so far as they go, but they are confined to a comparatively narrow field.

Spiegel has undertaken to compare the action of chemically allied substances in the inorganic as well as in the organic field. His treatise is somewhat more extended than that of Keane, but includes a considerable number of German proprietary products not used to a material extent in this country and fails to attack the problem from a thoroughly systematic point of view. The translation is dated in 1915, but the latest citation from other workers' publications is 1908. Several of the references bear dates from 1900 to 1905, but many of them are prior to that time. The work of Keane cited herein is not referred to in Spiegel's publication.

Kubushiro has studied the literature and compiled tables comparing some of the actions of the halogen derivatives of the saturated hydrocarbons, but found little or nothing concerning the halogen derivatives of the unsaturated and benzene series.

A great need exists for the systematic study of the physiological action of chemically allied substances, particularly in the organic field. It is the present writer's hope to continue the work and that this University will foster such studies on the part of other students. The question should be approached from a point of view broader than chemistry or medicine—from the standpoint of both—utilizing the most expert knowledge available in both fields. The research should begin with the hydrocarbons and go consecutively through the other classes of organic compounds, such as halogen derivatives, alcohols, aldehydes, acids, esters, ethers, ketones, amines and amids, in both the aliphatic and aromatic series, including the alkaloids in the latter class. The sub-classes should be covered in studying the main classes to which they belong. Tabulations should be made of the data now available as to the dosage, main physiological action and toxicity of the various compounds and necessary experimental work done to fill the spaces in such tabulations where information sought is not available. Among the factors that demand consideration in determining the items contemplated are:

1. The particular group or groups responsible for any given physiological action.
2. Relative arrangement of atoms and groups of atoms within the molecule, including stereo-isomeric compounds.
3. Hydrogen ion concentration of the medium in which the substances act in *vivo* and in *vitro*.
4. Solubility of the particular drug in the medium in which it must act.
5. Relation of dosage to body weight.

SUMMARY

I. Like substances reacting under similar conditions should produce similar results.

II. This is as true of drugs acting in *vivo* as in *vitro*, the problem being to ascertain or determine conditions in *vivo*.

III. The amount of research into the physiological action of chemically allied substances to date is by no means commensurate with the importance of the question.

IV. Chemistry offers a fertile field for the development of scientific medicine.

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